

SHEET INDEX

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SHEET INDEX NOTES

1. WHEN CHANGES ARE MADE IN THIS DRAWING, ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED. OR A NEW SHEET IS ADDED.
3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
5. THE LAST ISSUE NUMBER OF THE SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

SUPPORTING INFORMATION

	CATEGORY	NO.
T		

ISSUE
10

1C01

LINE DRAWING FOR
CD-25221-01
CROSSBAR SYSTEMS
NO. 1
ORIGINATING AND AUXILIARY SENDER TEST
TRANSVERTER TEST

AT&TCO
STANDARD

ES-558991
80 SHEETS

BELL TELEPHONE LABORATORIES
INCORPORATED

DWG SIZE
65

PRINTED IN U. S. A.

LOW 8 3/8 INCHES
FOR BINDING
MEN REDUCED

SHEET INDEX

FIG.	CONTENTS	SHEET NO.	ISSUE NO.																															
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34							
49	SEQUENCE CHART OF PCI CONTROL CIRCUIT SECTION -0115	17	10																															
50	SEIZURE SECTION -0117-5																																	
51	SYNCHRONIZING TEST FOR TRUNK CLOSURE SECTION -0117-6	18	10																															
52	CHECK OF FAST AND SLOW ASSIGNMENTS SECTION-0117-7,8																																	
53	CHECKING THE GROUNDING OF THE FT AND FR LEADS BY THE SENDER BEFORE SENDING PCI PULSES, SECTION-0117-9																																	
54	CHECKING OF PCI PULSES SECTION-0117-10	19	10																															
55	TWO-STAGE TANDEM PCI CALLS SECTION-0117-13																																	
56	CHECK OF FINAL HEAVY POSITIVE PULSE SECTION-0117-14																																	
57	CHECK OF DIGITS REGISTERED ON REGISTER RELAYS SECTION-0117-16																																	
58	SEIZURE SECTION-0119-5	20	10																															
59	DIALING OF THE CODE AND NUMBER SECTION-0119-6																																	
60	CODE CHECK SECTION-0119-7																																	
61	OFFICE OVERFLOW TEST-NO. 13 CLASS KEY SECTION-0119-11																																	
62	INCOMING OVERFLOW TEST-NO. 14 CLASS KEY SECTION-0119-12	21	10																															
63	SEQUENCE CHARTS FOR FIGURES 61 & 62 SECTION-0119-11,12																																	
64	SEIZURE SECTION-0121-5																																	
65	DIALING THE A,B, AND C DIGITS SECTION-0121-6 & 7	22	10																															
66	SEQUENCE CHART, SEIZURE AND DIALING SECTION-0121-5,6,7,8																																	
67	CHECK OF THE SENDER FOR AWAITING THE DIALING OF ALL DIGITS BEFORE GROUNDING THE TR LEAD SECTION-0121-10																																	
68	PANEL OR TANDEM CROSSBAR OFFICE SELECTIONS CLASS NO. 10 KEY OPERATED SECTION-0121-12	23	10																															
69	PERMANENT SIGNAL TEST MR CLASS KEY NO. 12 OPERATED, ZERO (B) & (C) CODE KEYS OPERATED SECTION-0121-13																																	
70	SEIZURE SECTION-0123-5																																	
71	REGISTRATION SECTION-0123-6																																	
72	FULL SELECTOR CALL SECTION-0123-7	24	10																															
73	CHECK OF KEY RELEASE SECTION-0123-7.5																																	
74	LATE RELEASE FULL SELECTOR-INCOMPLETE NUMERICAL REGISTRATION,SECTION-0123-8																																	
75	SEIZURE, AWAITING PULSING AND CHECK OF CODE, SECTION-0125-5,6																																	
76	OFFICE BRUSH, OFFICE GROUP AND SKIP OFFICE SELECTIONS, SECTION-0125-7,8,10																																	
77	FULL SELECTOR TESTS-SEIZURE OF INCOMING AND FINAL SELECTIONS CONTROL CIRCUIT SECTION-0125-11.1																																	

FIG.	CONTENTS	SHEET NO.	ISSUE NO.																																	
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34									
78	TRUNK CLOSURE TEST SECTION-0125-11.2	25	10																																	
79	CALL INDICATOR CALLS-SEIZURE PCI REGISTER CIRCUIT, SECTION-0125-12																																			
80	CHECK OPERATION OF TR AND DC RELAYS, AND RELEASE OF S RELAY SECTION-0125-13																																			
81	SEIZURE SECTION-0127-5	26	10																																	
82	CHECKING OF THE KEY RELEASE SECTION-0127-6																																			
83	OFFICE BRUSH & OFFICE GROUP SELECTIONS, SKIP OFFICE SELECTION SECTION-0127-7,8,10																																			
84	OFFICE OVERFLOW TEST SECTION-0127-12																																			
85	TEST OF TRUNK CLOSURE SECTION-0127-13	27	10																																	
86	INCOMING OVERFLOW SECTION-0127-15																																			
87	SEIZURE SECTION-0129-5	28	10																																	
88	SEIZURE OF KP CIRCUIT SECTION-0129-6																																			
89	OFFICE BRUSH AND OFFICE GROUP SELECTIONS, SKIP OFFICE SELECTION,SECTION-0129-7,8,9																																			
90	TRUNK TEST-NO DISTANT OFFICE SELECTOR SECTION-0129-12																																			
91	SEQUENCE CHART SECTION-0129	29	10																																	
92	PRELIMINARY OPERATION AND SEIZURE SECTION-0131-5,6																																			
93	BUSY TEST SECTION-0131-7	30	10																																	
94	BUSY TEST OF SENDER GROUP SECTION-0131-8																																			
95	SEIZURE OF SENDER SECTION-0131-10	31	10																																	
96	CHECK OF RELEASE SIGNAL SECTION-0131-11	32	10																																	
97	CHECK OF ADVANCE OF PREFERENCE LEAD TO NEXT SENDER-PREATURE CLOSURE SECTION-0131-12																																			
98	CHECK FOR CROSSES ON SC- RELAY CONTACTS SECTION-0131-13																																			
99	GROUP MAKE BUSY SECTION-0131-16																																			
100	SEIZURE SECTION-0133-5	33	10																																	
101	REGISTRATION SECTION-0133-7																																			
102	CHECKING THE A DIGIT SECTION-0133-8																																			
103	CHECKING THE OTHER DIGITS SECTION-0133-9	34	10																																	
104	RELEASE SECTION-0133-10																																			
105	SEIZURE SECTION-0135-5																																			

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SHEET 2

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ISSUE
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ISSUE
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FIG.	CONTENTS	SHEET NO.	ISSUE NO.																															
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34							
153	ZERO OPERATOR CALL-DIAL DIGIT 0 SECTION - 0121-11	62	10																															
154	ZERO OPERATOR CALL-DIAL DIGITS (0-0) SECTION - 0121-11																																	
155	ZERO OPERATOR CALL-DIAL DIGITS (1-0) SECTION - 0121-11	63	10																															
156	PREFIX DIGITS 0 AND 1 ODD CALL SECTION - 0139-7	64	10																															
157	ODN TEST CALL SECTION - 0141	65	10																															
158	0 OPERATOR TEST CALL SECTION - 0141																																	
159	RELEASE AND RESET FOR ODN SECTION - 0141	66	10																															
160	RESET FOR ODN SECTION - 0141																																	
161	DIGIT CHECK FOR ODN SECTION - 0141																																	
162	PREFIX DIGIT LEAD CHECK WITH ODN SECTION-0141-20	67	10																															
163	TEST TRUNK SECTION-0141-20	68	10																															
164	0 OPERATOR ODN CALL SECTION-0141-20																																	
165	DIALING AND CHECKING FULL SELECTOR INTERCHANGEABLE CODE SECTION-0111-22	69	10																															
166	DIALING AND CHECKING PCI INTERCHANGEABLE CODE,SECTION - 0115-25	70	10																															
167	PREPARATION-INTERCHANGEABLE CODE SECTION - 0133-21																																	
168	FIRST AND SECOND SEIZURE CHECK, INTERCHANGEABLE CODE SECTION - 0133-21	71	10																															
169	INF AND SL LEAD CHECK SECTION - 0135-6	72	10																															
170	INFORMATION CODE 411 SECTION - 0139-27																																	
171	SEQUENCE CHART,FULL SELECTOR CALL, SKIP OFFICE,INTERCHANGEABLE CODE SECTION-0111-22.3	73	10																															
172	SEQUENCE CHART,FULL SELECTOR CALL, WITH OFFICE SELECTIONS INTERCHANGEABLE CODE,SECTION - 0111-22.4	74	10																															
173	SEQUENCE CHART,PCI CALL, INTERCHANGEABLE CODE SECTION - 0115-25																																	
174	SEQUENCE CHART,MF CALL, INTERCHANGEABLE CODE SECTION - 0139-29	75	10																															
175	CIRCUIT FOR"TOUCH-TONE"TO DIAL PULSE CONVERTER SPEED TEST SECTION - 0139-30.2	76	10																															
176	CIRCUIT FOR PREFIX 0 OR 1 AND "TOUCH-TONE"TO DIAL PULSE CONVERTER SPEED TEST,SECTION - 0139-30.4																																	
PART OF 177	"TOUCH-TONE"TO DIAL PULSE CONVERTER CIRCUIT SPEED TEST SECTION - 0139-30	77	10																															
PART OF 177		78	10																															

FIG.	CONTENTS	SHEET NO.	ISSUE NO.																																	
			10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34									
178	BYPASSING THE SD-25012-01 SENDER WHEN TESTING DOUBLE PREFIX 0-1,1-0 FEATURE OF SENDER SD-27810-01 SECTION - 0102-PAR.33.1	79	10																																	
179	COIN SERVICE IMPROVEMENT SENDER GT RELAY TEST AND 2ND MARKER TRANSLATION CHECK	80	10																																	

SECTION INDEX

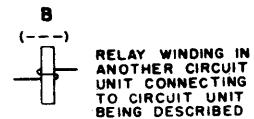
SECTION	FIGURE
-0102	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 178
-0105	14, 15, 16, 17, 18, 146, 147, 148
-0108	19, 20, 21, 22, 23
-0111	24, 25, 26, 27, 28, 29, 30, 31, 152, 165, 171, 172
-0113	32, 33, 34, 35, 36, 37, 38, 39
-0115	40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 166, 173
-0117	50, 51, 52, 53, 54, 55, 56, 57
-0119	58, 59, 60, 61, 62, 63
-0121	64, 65, 66, 67, 68, 69, 153, 154, 155
-0123	70, 71, 72, 73, 74
-0125	75, 76, 77, 78, 79, 80
-0127	81, 82, 83, 84, 85, 86
-0129	87, 88, 89, 90, 91
-0131	92, 93, 94, 95, 96, 97, 98, 99
-0133	100, 101, 102, 103, 104, 149, 150, 167, 168
-0135	105, 106, 169
-0137	107, 108
-0139	109, 110, 111, 112, 113, 114, 115, 127, 128, 156, 170, 174, 175, 176, 177
-0141	116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 129, 151, 157, 158, 159, 160, 161, 162, 163, 164
-0143	130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145
-0156	
-0165	179

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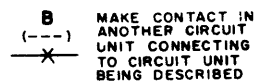
ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED



RELAY WINDING
AS IS DESCRIBED IN
PARTICULAR
CIRCUIT UNIT



RELAY WINDING IN
ANOTHER CIRCUIT
UNIT CONNECTING
TO CIRCUIT UNIT
BEING DESCRIBED



MAKE CONTACT IN
ANOTHER CIRCUIT
UNIT CONNECTING
TO CIRCUIT UNIT
BEING DESCRIBED



BREAK CONTACT IN
CIRCUIT UNIT BEING
DESCRIBED



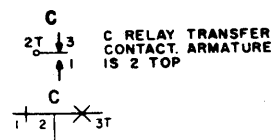
DESIGNATES CIRCUIT
UNIT IN CD. THIS
DOES NOT ALWAYS
CORRESPOND TO
SD SHEET



RESISTOR D-500 OHMS



STEPPER MAGNET



C RELAY TRANSFER
CONTACT. ARMATURE
IS 2 TOP

SECTION-0102-5 CD SECTION OR
CIRCUIT UNIT-0102,
PARAGRAPH 5

SEQUENCE CHARTS

A RELAY OPERATED AS DESCRIBED IN
PARTICULAR FIGURE OR CIRCUIT UNIT

B (---) RELAY OPERATED IN ANOTHER FIGURE OR
CIRCUIT UNIT, OR ANOTHER CIRCUIT NOT
ON TEST FRAME

INTERMEDIATE ACTION SHOWN ON
SAME CIRCUIT UNIT OR ELSEWHERE

SEQUENCE CHARTS ARE SHOWN
FOR PARTICULAR FIGURES,
CIRCUIT UNITS OR SECTIONS
OPERATING IN CONJUNCTION
WITH EACH OTHER

NOTE:
FOR OTHER SYMBOLS AND EXPLANATIONS PERTAINING TO
ATTACHED LINE DRAWINGS OPERATIONAL SKETCHES AND
SEQUENCE CHARTS, SEE OS-000-2, MP-10378 AND SC-000-2,
MP-10379 (BSP ITEMS)

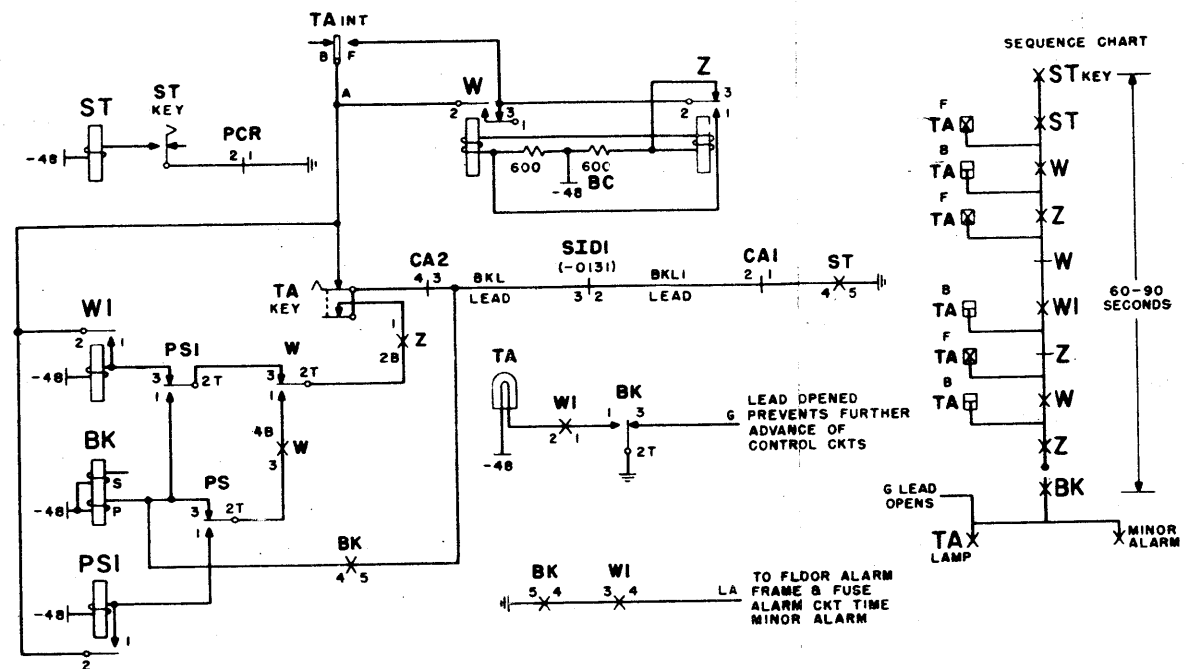


FIG. 1 - TIME ALARM AND BLOCKING
SECTION -0102-5

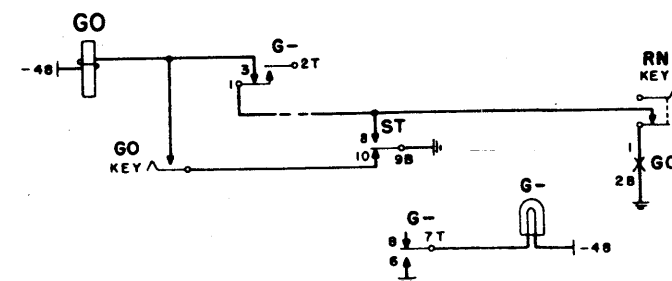


FIG. 2 - SELECTION OF FIRST CROSSBAR SWITCH
SECTION -0102-6

FIG. A - MASTER LEGEND FOR LINE DRAWINGS
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CD-25221-01

2

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SHEET 5

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FOR BINDING
WHEN REDUCED

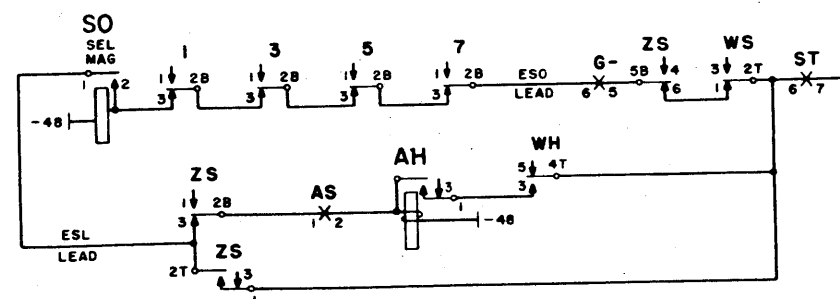
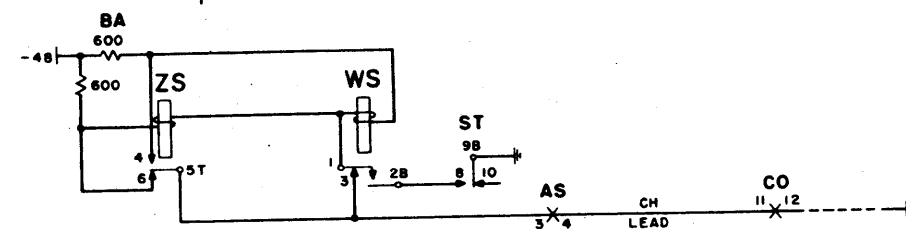
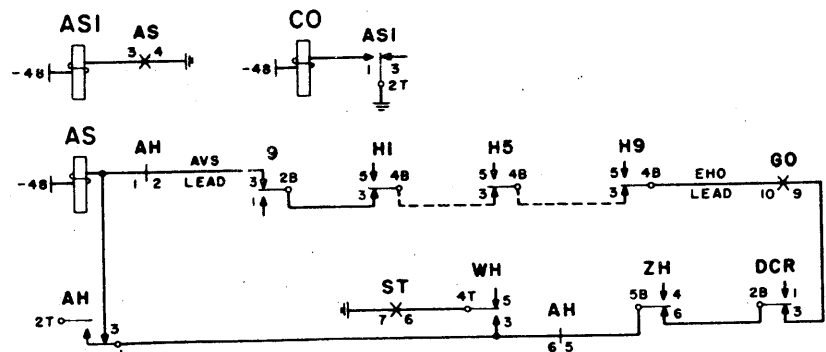
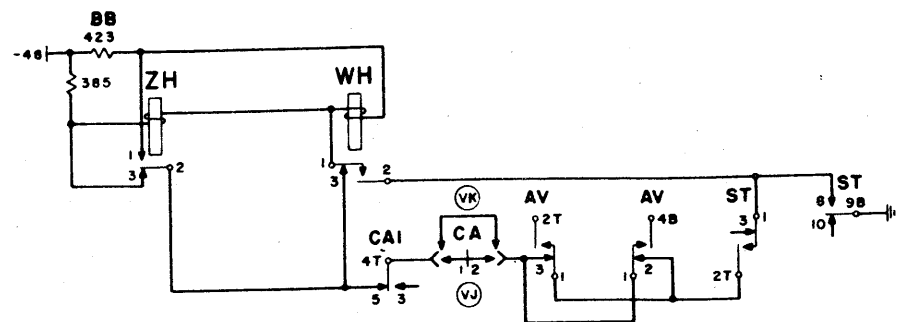


FIG. 3 - OPERATION OF SELECT MAGNET
SECTION - 0102-7

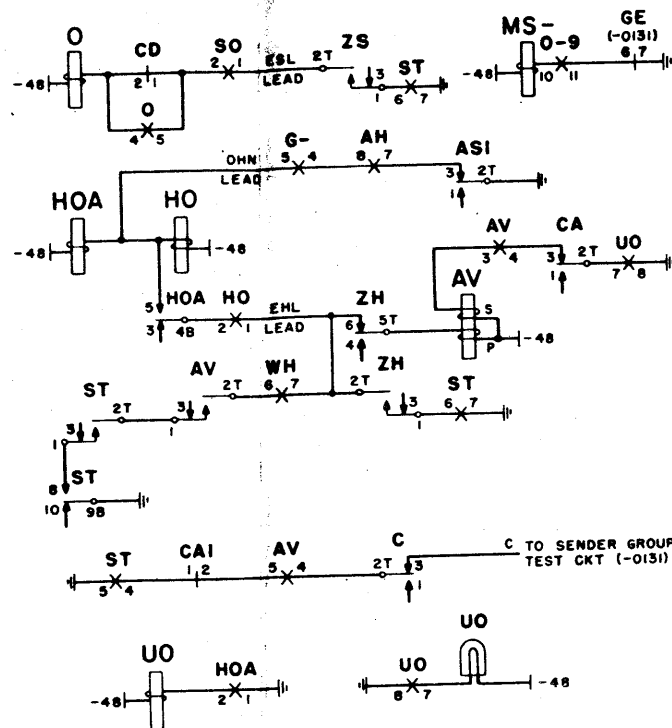


FIG. 4 - OPERATION OF HOLD MAGNET
SECTION - 0102-8

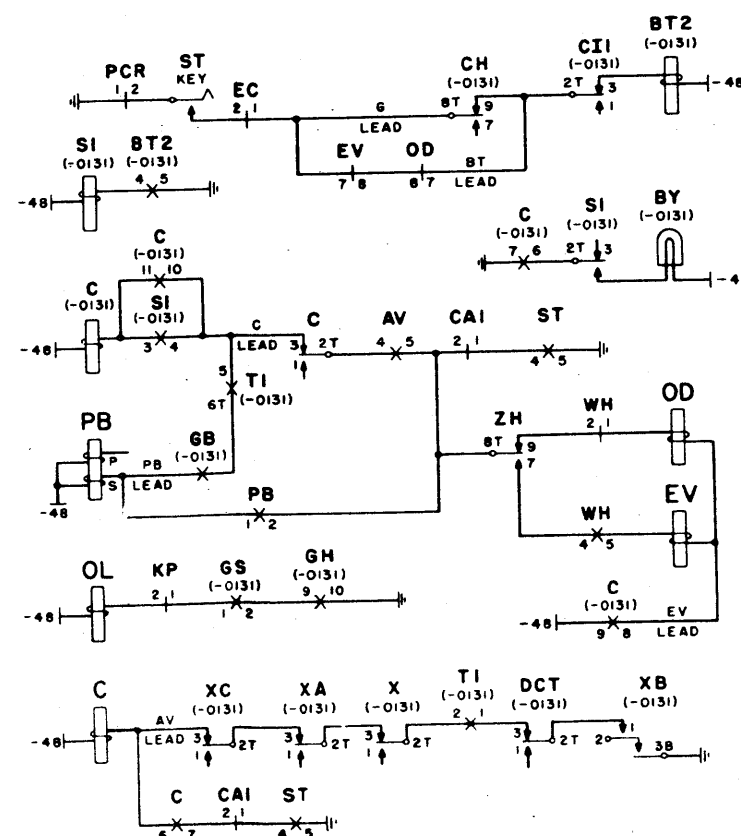


FIG. 5 - OPERATION OF SELECT AND HOLD MAGNET
SECTION - 0102-7 & 8

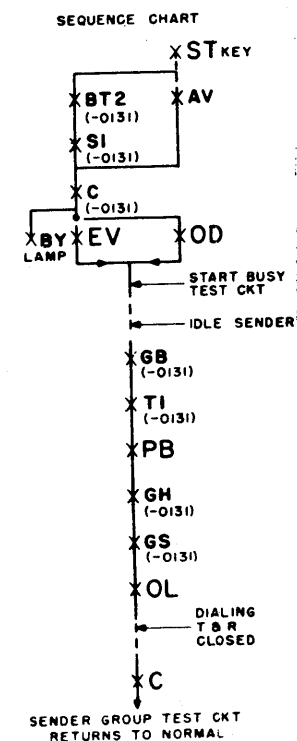
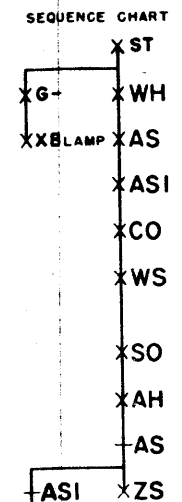
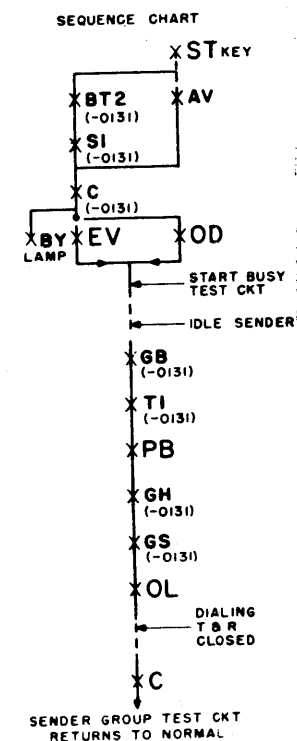


FIG. 6 - SEIZURE OF SENDER GROUP TEST CIRCUIT
SECTION - 0102-9



SEQUENCE CHART

FIG. 5 - OPERATION OF SELECT AND HOLD MAGNET
SECTION - 0102-7 & 8



SEQUENCE CHART

SENDER GROUP TEST CIRCUIT
RETURNS TO NORMAL

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SHEET 6

ISSUE
10

LOW 8 3/8 INCHES
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WHEN REDUCED

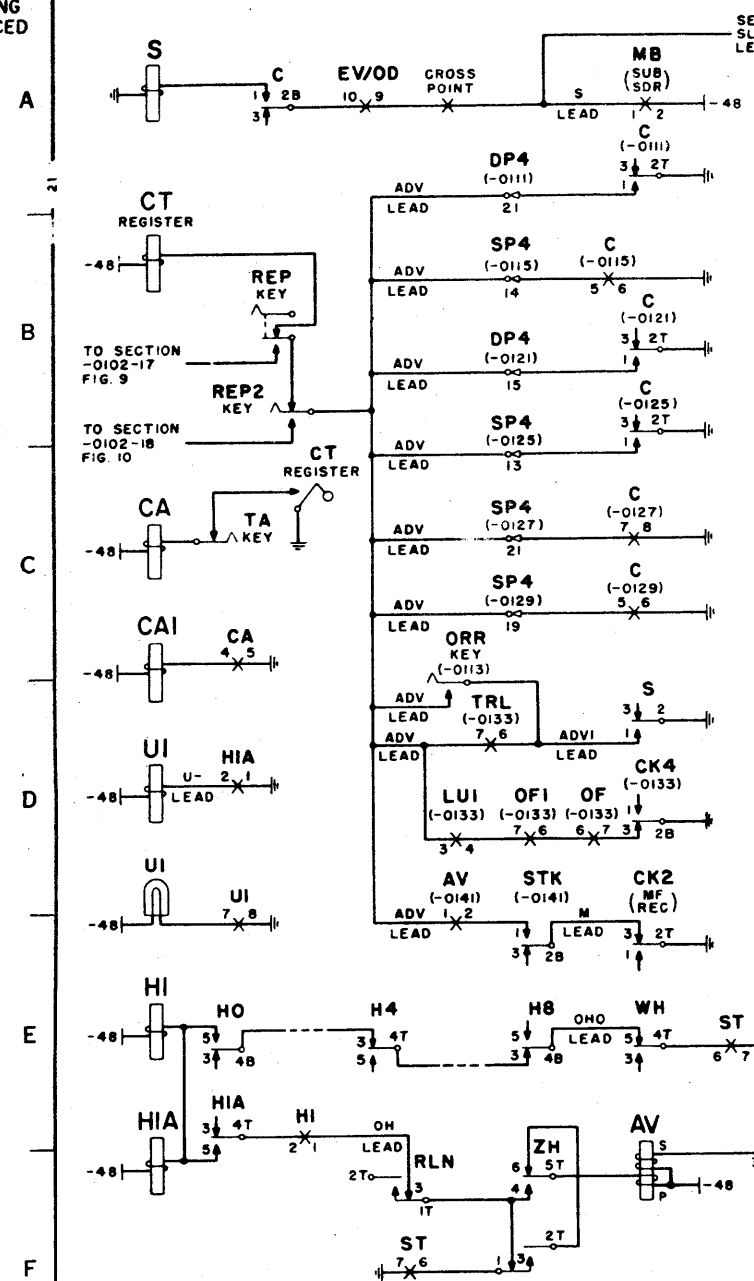


FIG. 7 - COMPLETION OF TEST AND ADVANCE TO NEXT SENDER
SECTION - 0102-10

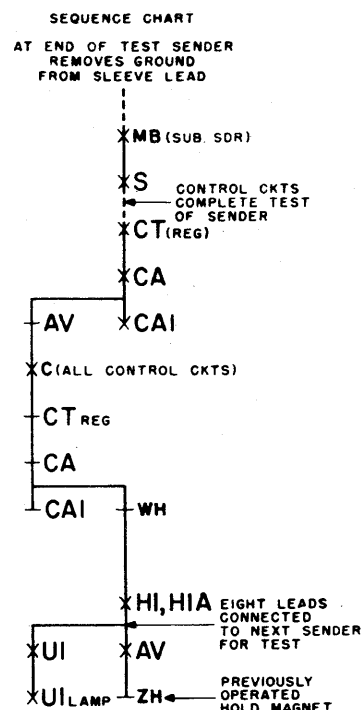


FIG. 8 - ADVANCE TO NEXT SUB-GROUP OF SENDERS
SECTION - 0102-11

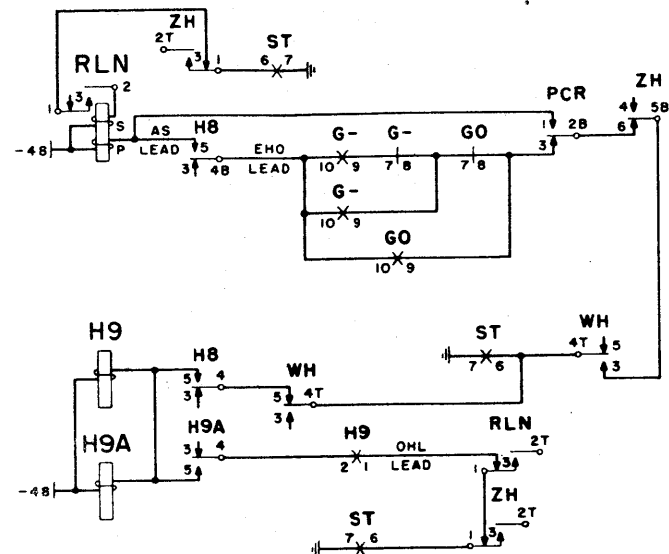


FIG. 9 - REPEAT TEST
SECTION - 0102-17

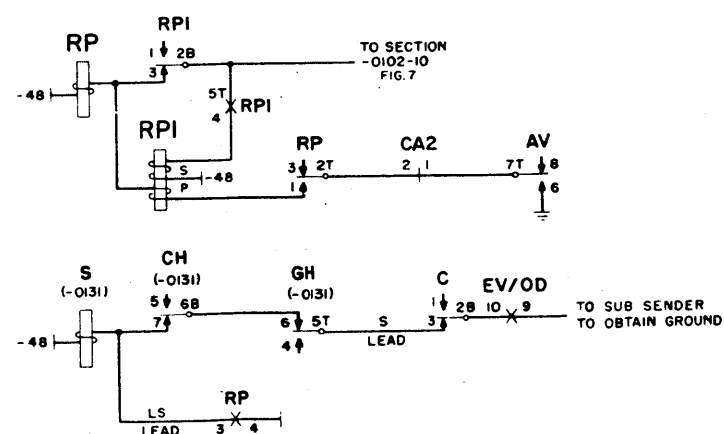


FIG. 10 - REPEAT 2 TEST
SECTION - 0102-18

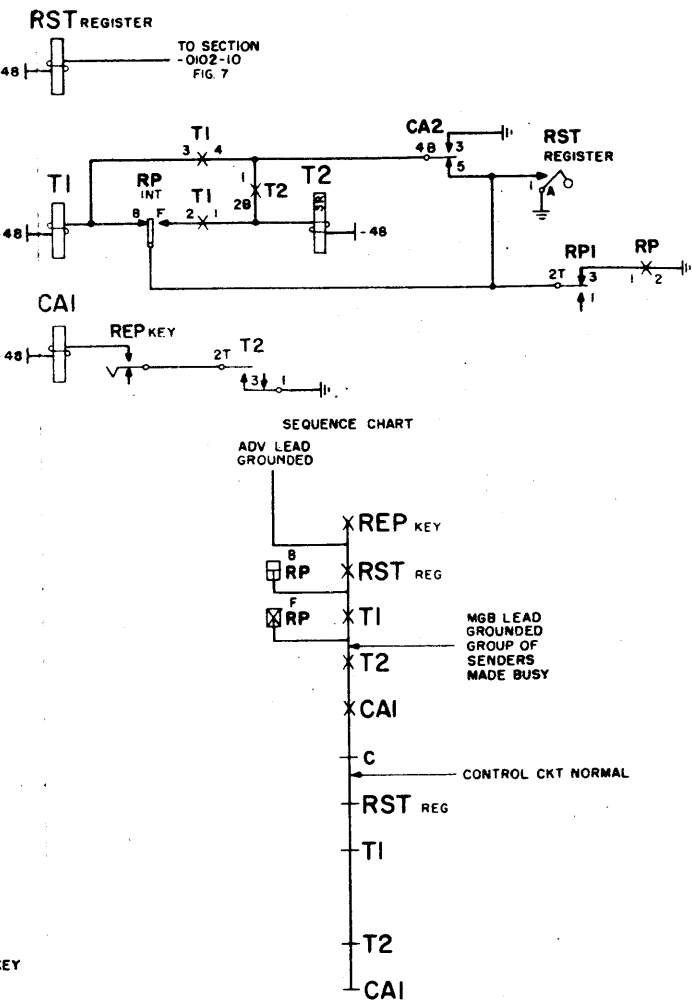
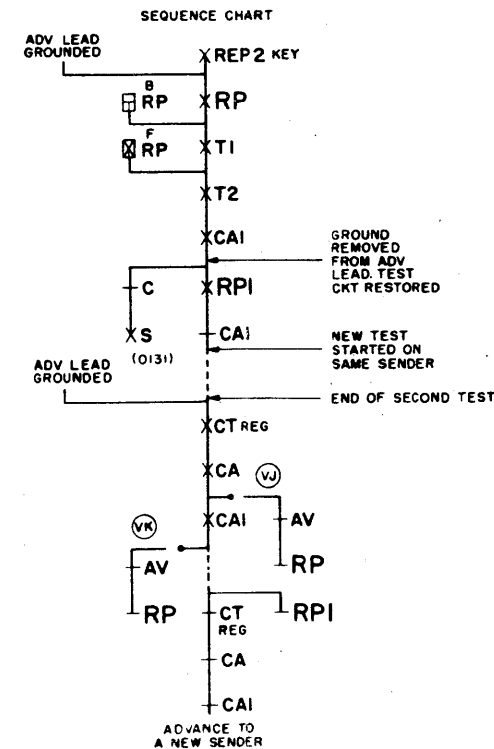
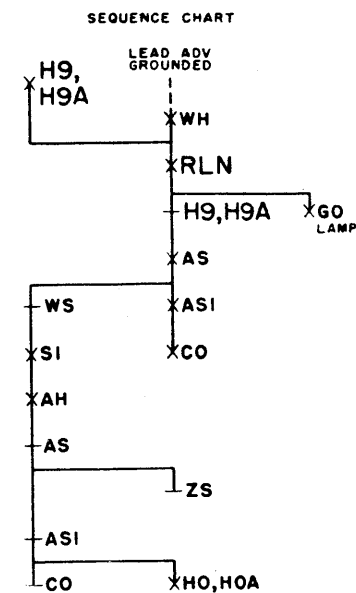


FIG. 13 - REPEAT 5 TEST
SECTION - 0102-21

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WHEN REDUCED

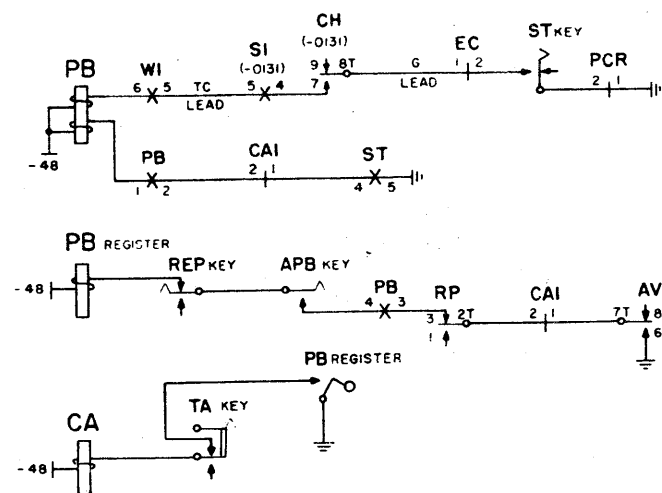


FIG. 11 - AUTOMATIC PASS BUSY FEATURE
SECTION - 0102-19

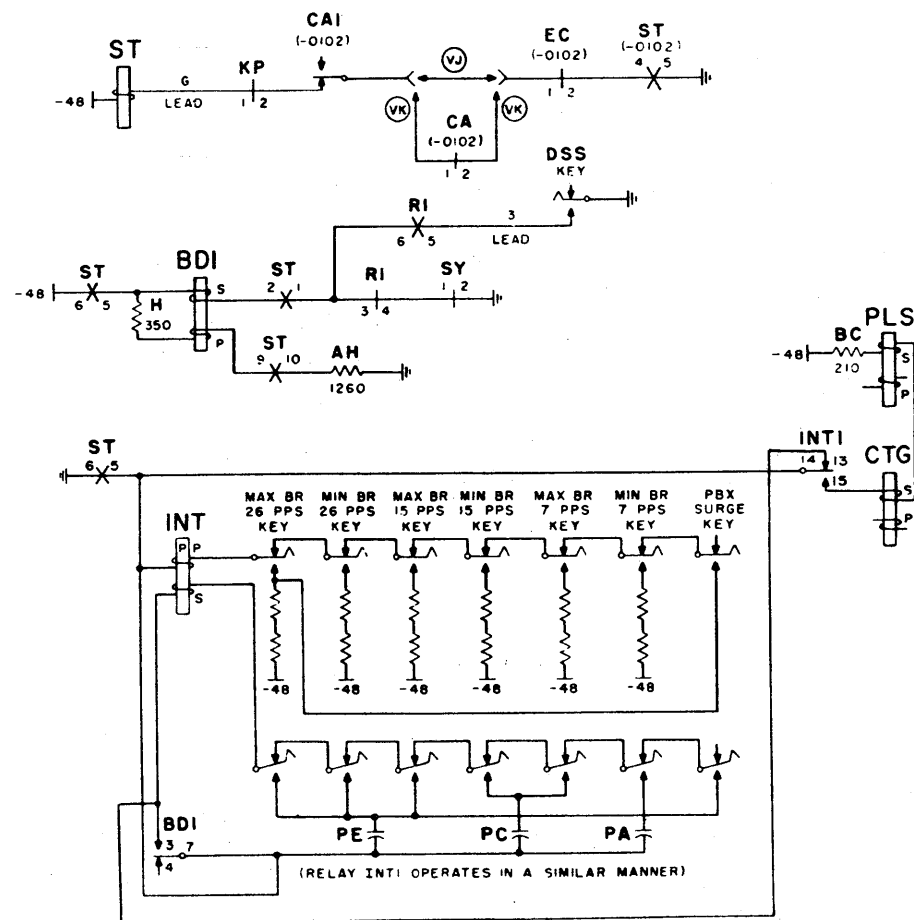


FIG. 14 - SEIZURE BY CONTROL CIRCUITS
SECTION - 0105-5

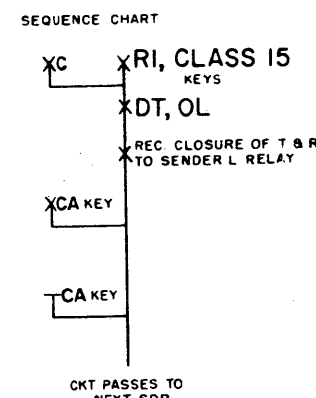
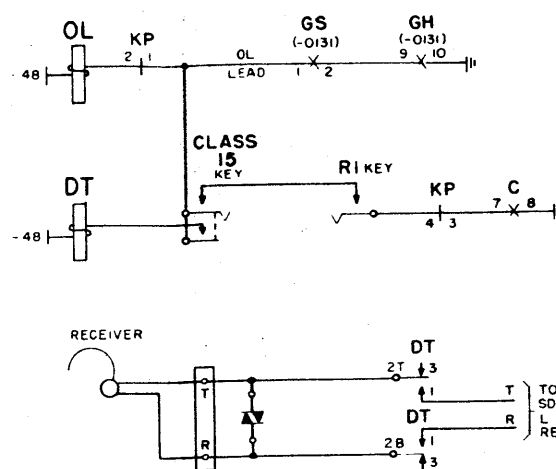
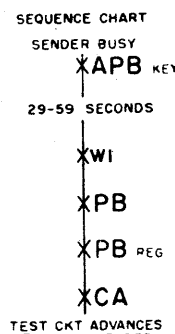


FIG. 12 - DIAL TONE TEST
SECTION - 0102-26

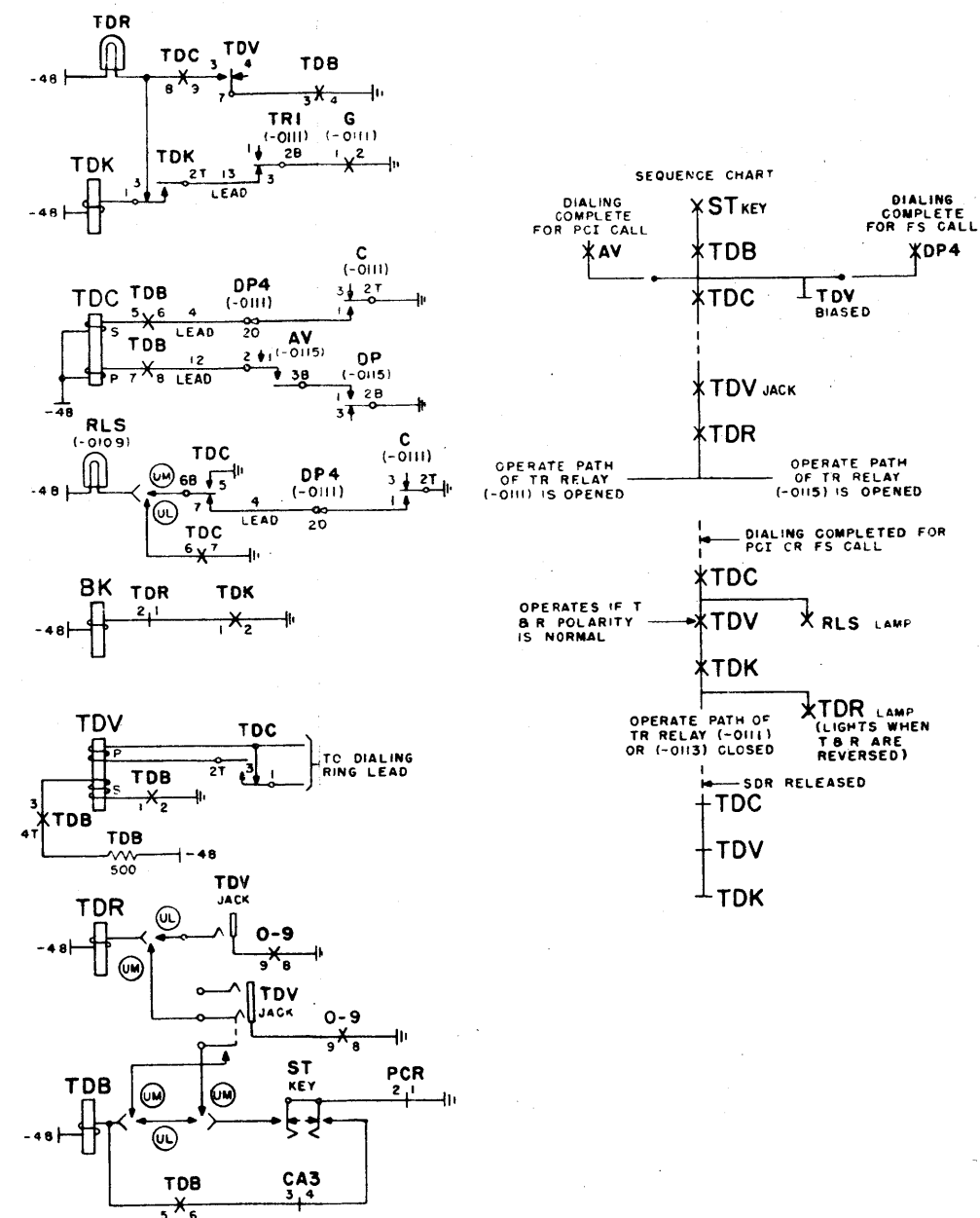


FIG. 13 - TIP AND RING POLARITY TEST AT DIALING
COMPLETION CHECK OF SUBSCRIBER SENDER
ON RESTRICTED PBX CALL DIVERSION FEATURE
SECTION - 0102-29

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FOR BINDING
WHEN REDUCED

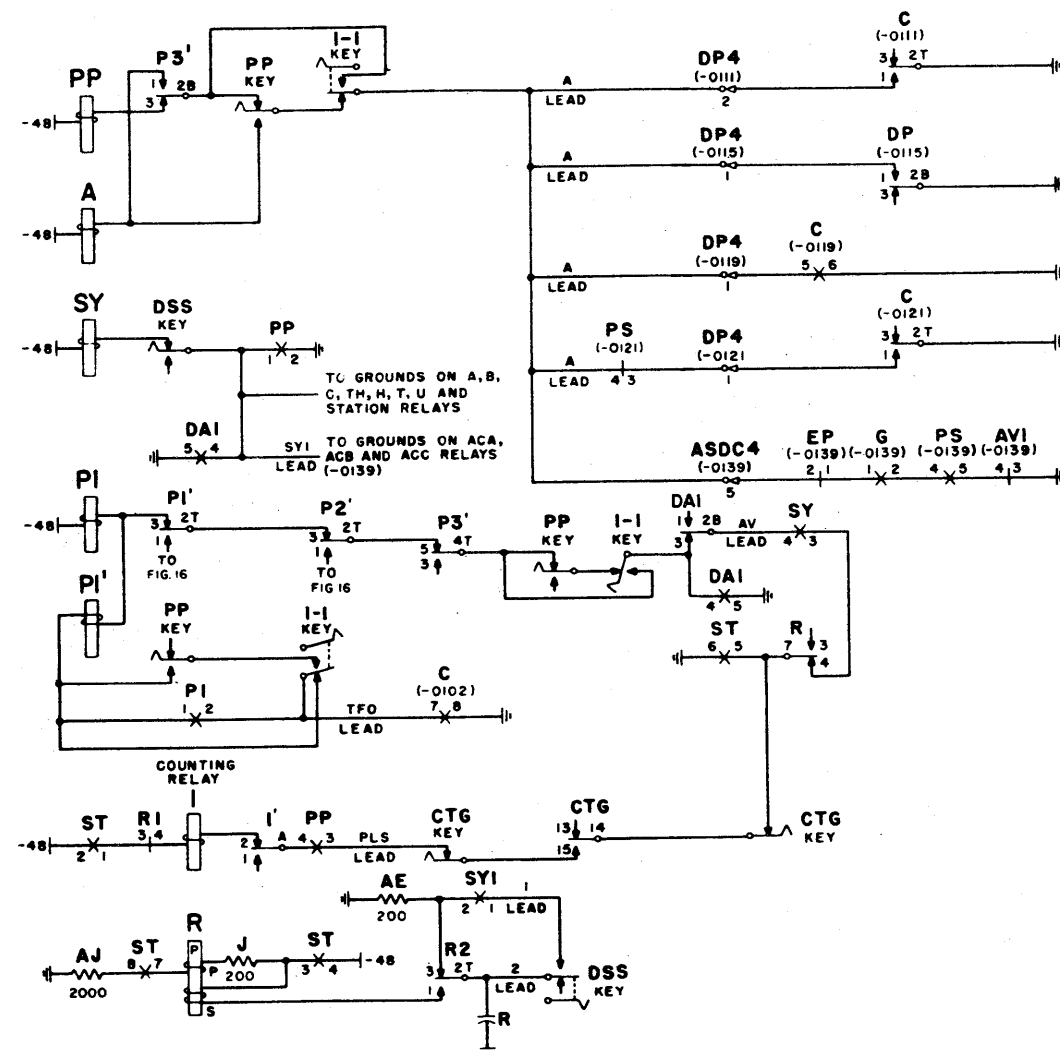
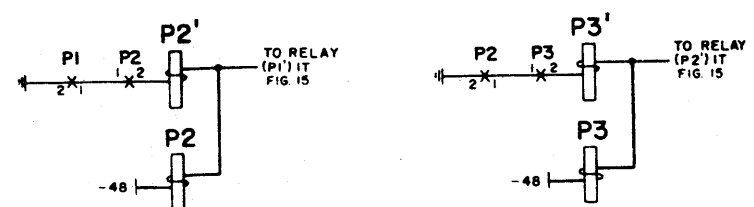


FIG. 15 - DIALING PRELIMINARY PULSE
SECTION - 0105-6



SEQUENCE CHARTS

I-1 KEY OPERATED } 3 "ONES" DIALED INTO SUB. SDR BEFORE REGULAR OFFICE CODE
PP KEY NORMAL
I-1 KEY OPERATED } 2 "ONES" DIALED INTO SUB. SDR BEFORE REGULAR OFFICE CODE
PP KEY OPERATED
I-1 KEY NORMAL } 1 DIGIT "ONE" DIALED INTO SUB. SDR BEFORE REGULAR OFFICE CODE
PP KEY NORMAL
I-1 KEY NORMAL } 1ST DIALING TO TAKE PLACE IS THE 1ST DIGIT OF THE REGULAR OFFICE CODE
PP KEY OPERATED

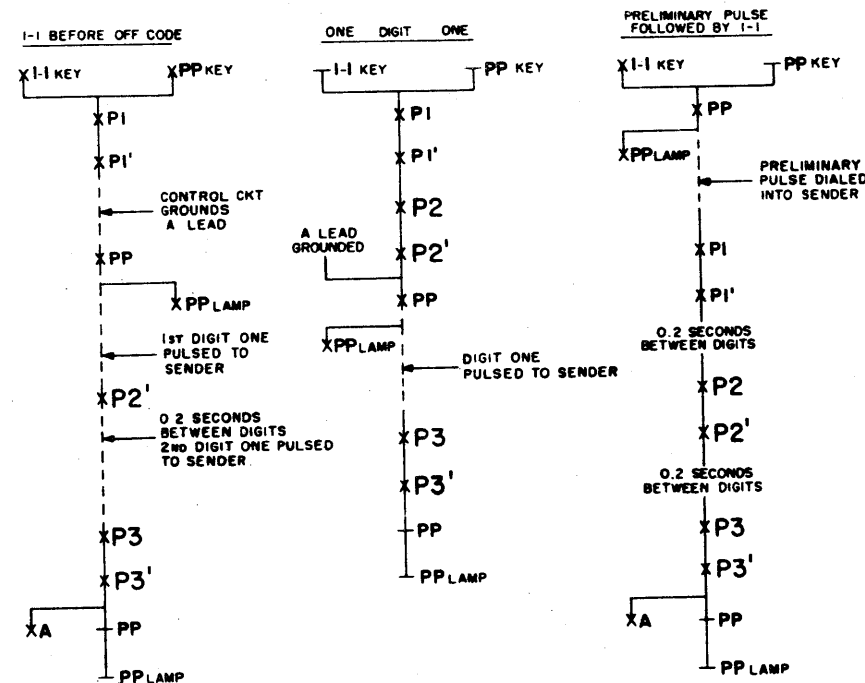


FIG. 16 - DIALING PREFIX I-1 (SUB SDRS)
SECTION - 0105-7

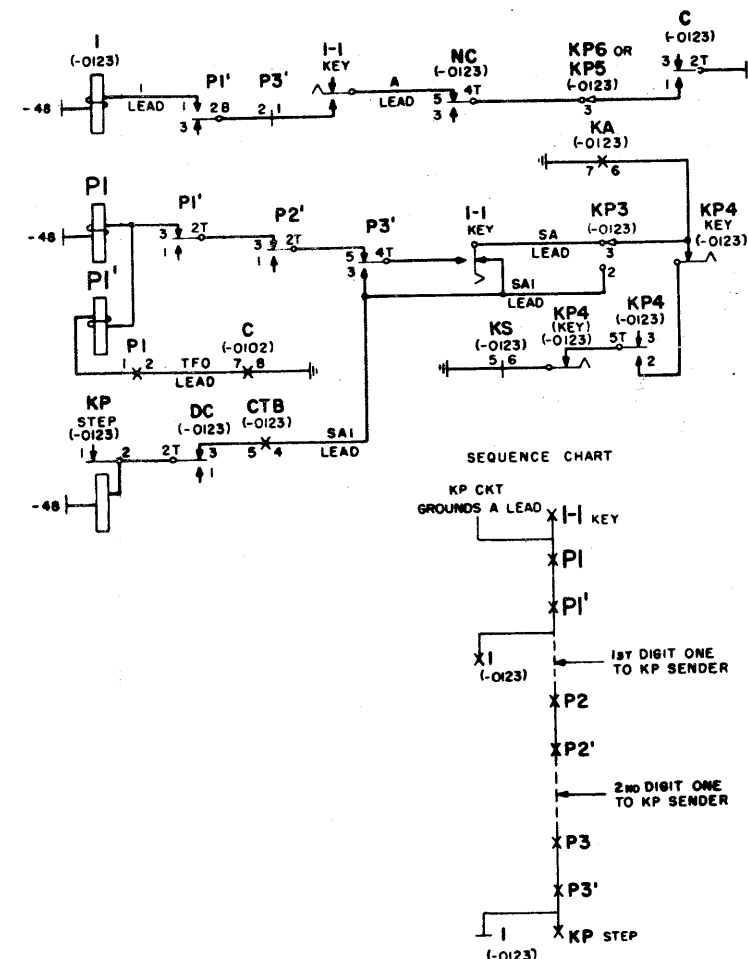
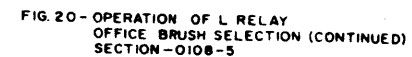


FIG. 17 - PULSING PREFIX I-1, KP SENDERS
SECTION - 0105-8

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TO SUB OR KP SDR

FR

CROSS POINT

EV/OD

CA2 (-0103)

6T

7

FR LEAD

BF 1000

-4R

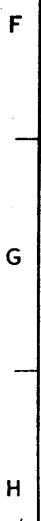
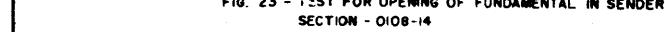
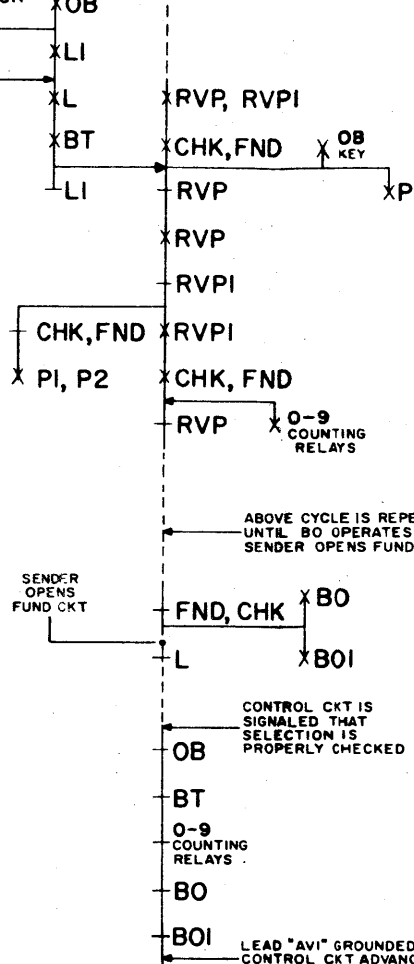
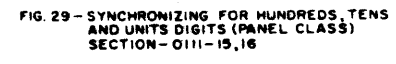


FIG 25 - DIALING OF PRELIMINARY PULSE
SECTION - 0111-6

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FOR BINDING
WHEN REDUCED

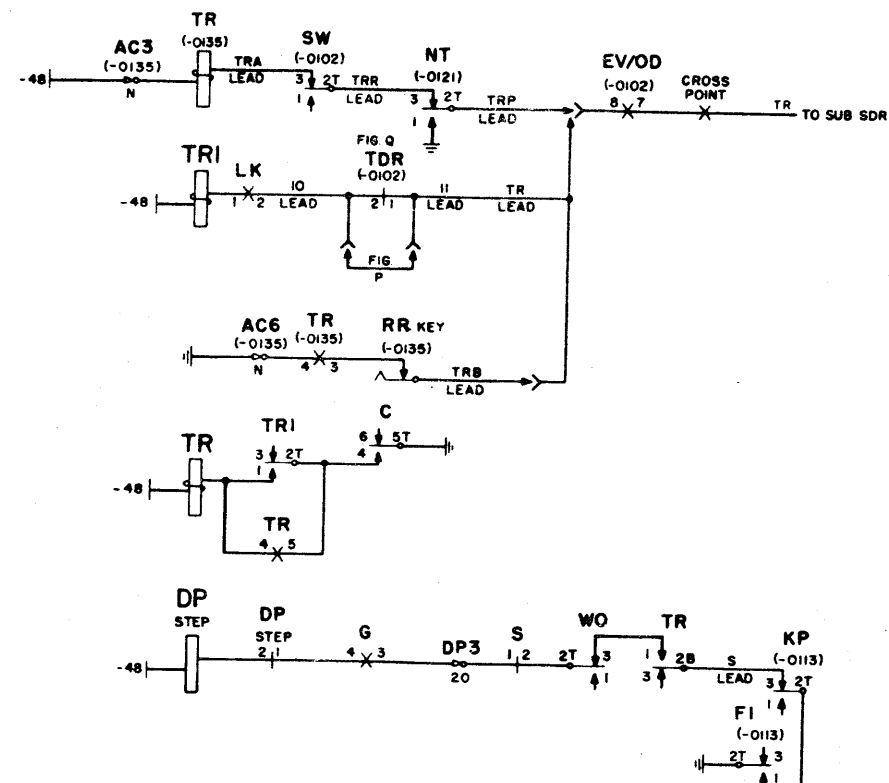


FIG. 31 - RELEASE
SECTION - 0113-20

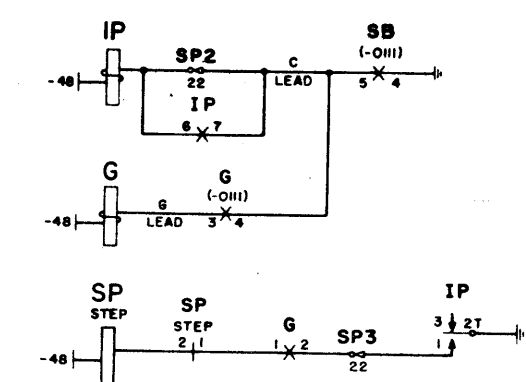
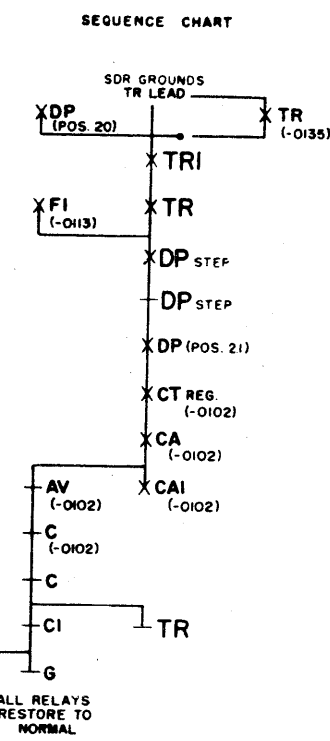


FIG. 32 - SEIZURE
SECTION - 0113-5

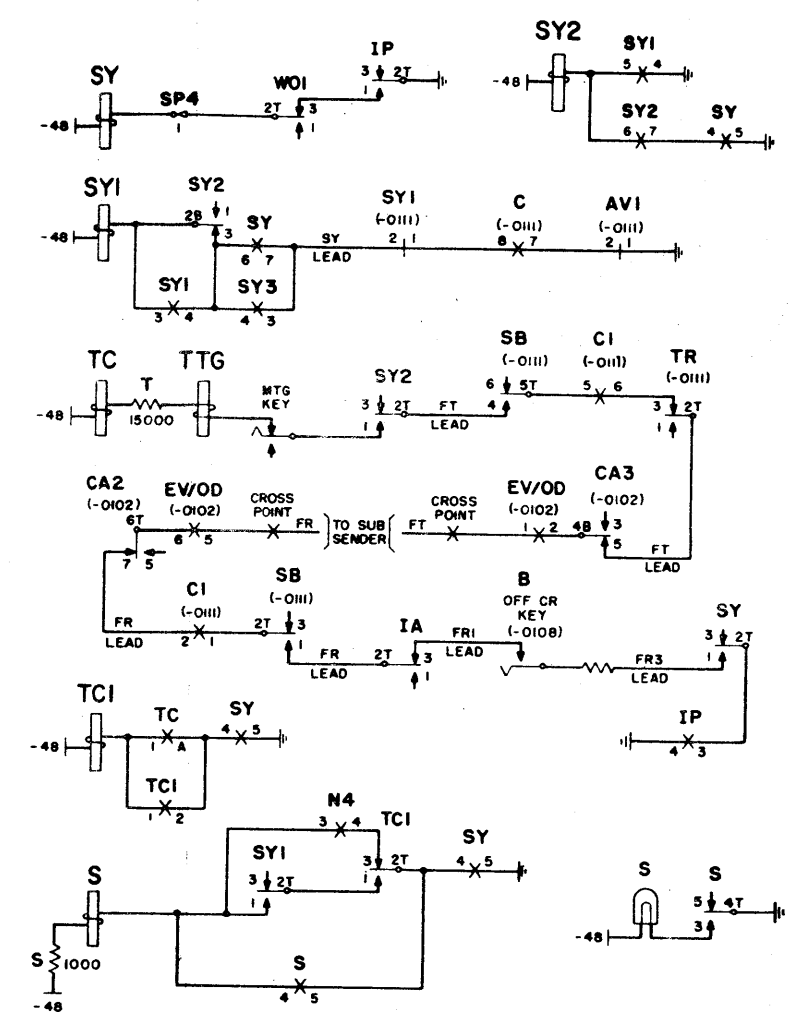


FIG. 33 - SYNCHRONIZING TEST FOR THOUSANDS DIGIT (PANEL CALL)
SECTION - 0113-6

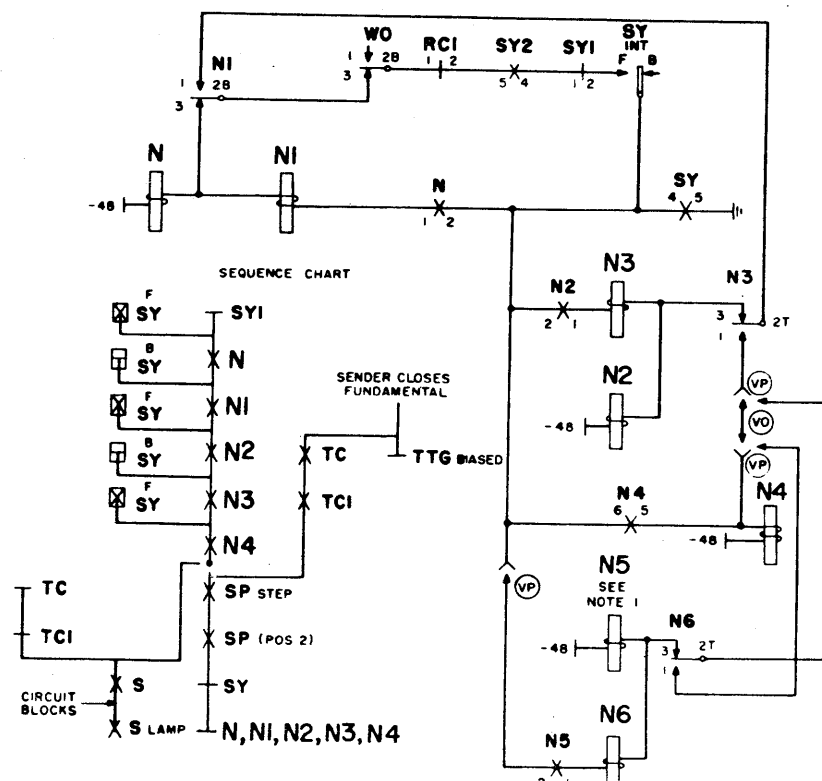


FIG. 34 - TG RELAY TEST AND TEST FOR UNDUE
DELAY IN TRUNK CLOSURE
SECTION - 0113-7

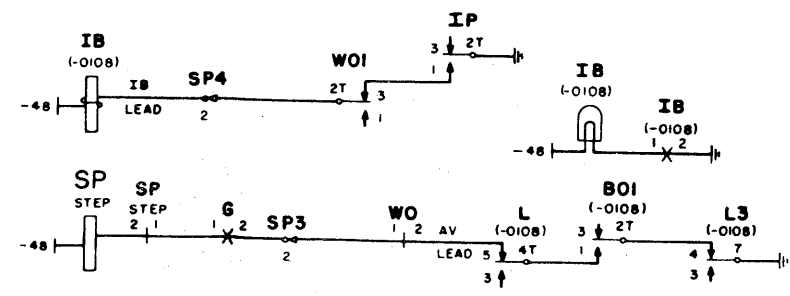


FIG. 35 - INCOMING BRUSH SELECTION
SECTION - 0113-9

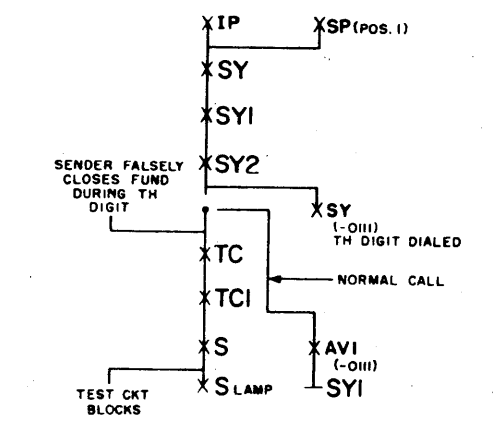


FIG. 36 - SENDER FALSELY CLOSING FUND DURING TH DIGIT
SECTION - 0113-8

NOTES:
1. RELAYS N5 AND N6, VP OPTION, ARE USED WHEN TESTING
AMA SENDERS FOR CALLS THAT TERMINATE IN A PANEL OFFICE

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FOR BINDING
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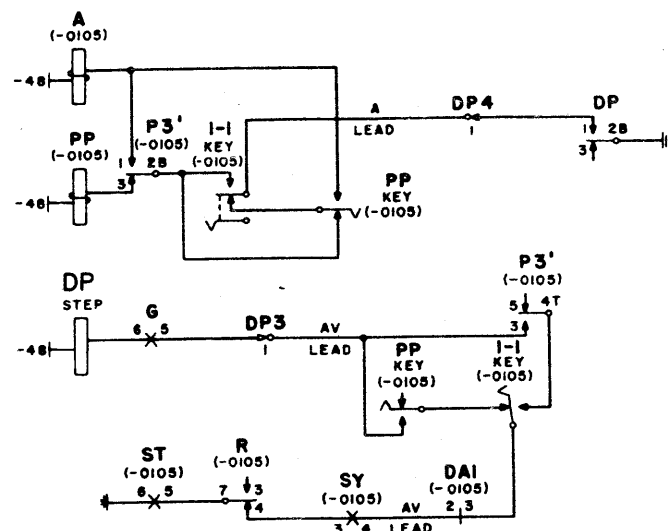


FIG. 41 - DIALING THE A CODE DIGIT
SECTION - 0115-6

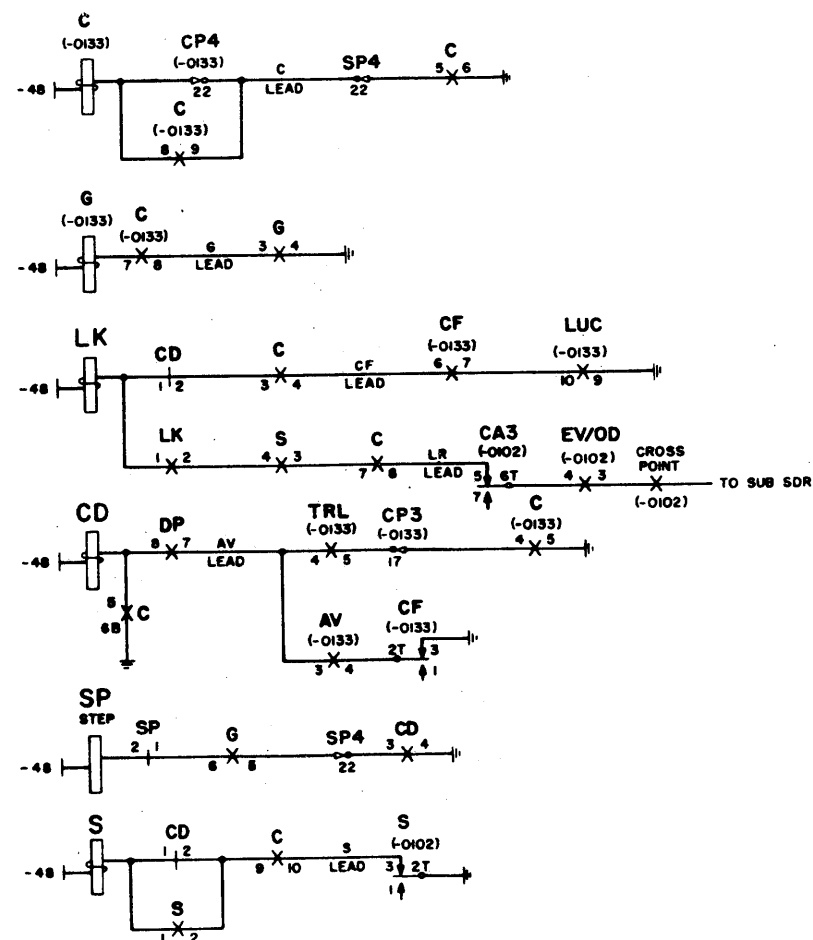


FIG. 44 - CODE CHECK
SECTION - 0115-11

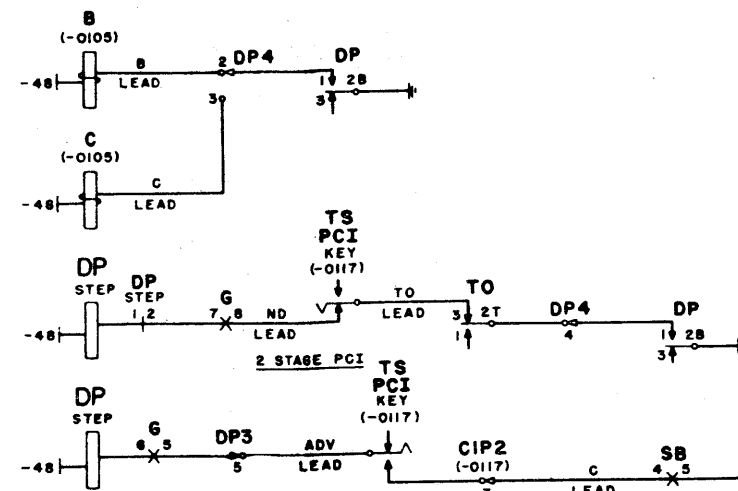


FIG. 42 - DIALING THE B AND C CODE DIGITS
SECTION - 0115-7

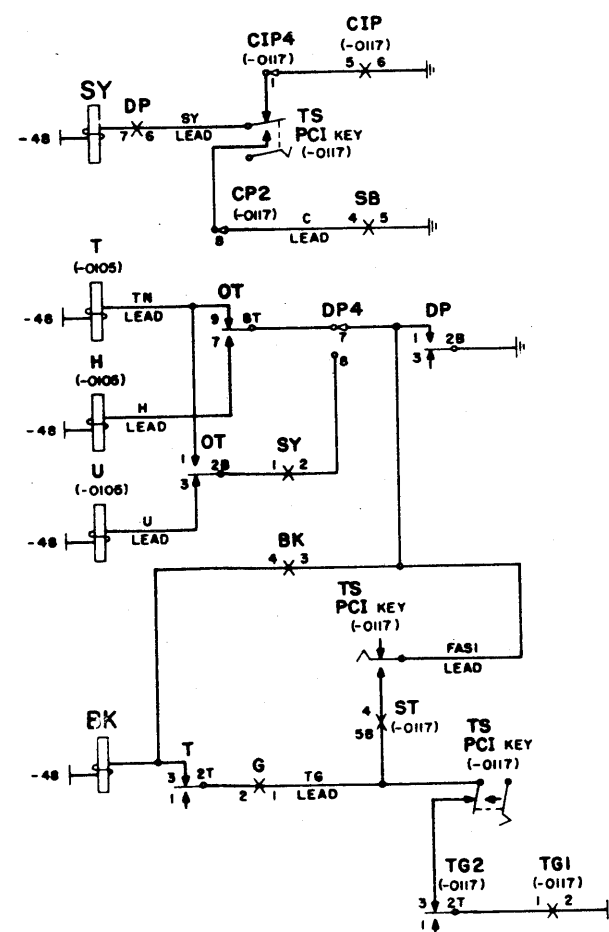


FIG. 45 - SYNCHRONIZING SENDER FOR TRUNK TEST
SECTION - 0115-17

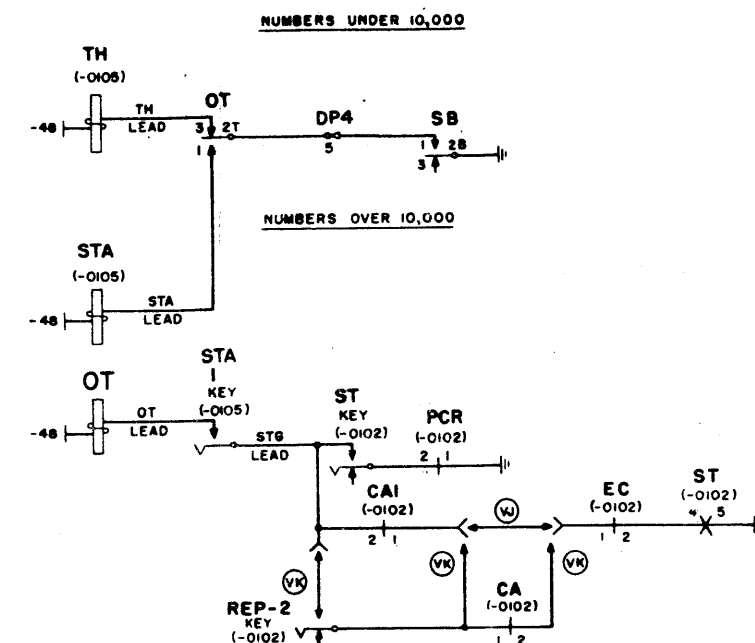


FIG. 43 - DIALING THE FIRST NUMERICAL DIGIT
SECTION - 0115-8

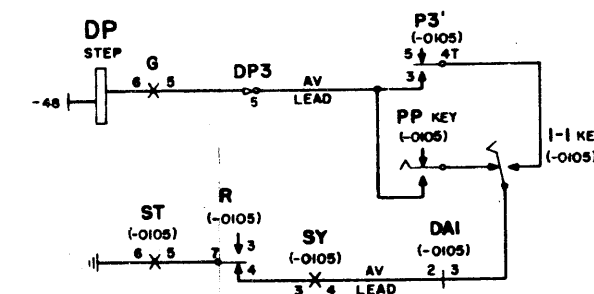


FIG. 43 - DIALING THE FIRST NUMERICAL DIGIT
SECTION - 0115-8

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BELL TELEPHONE LABORATORIES
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2

ES-558991

SHEET 15

6S

ISSUE
10

N 8 3/8 INCHES
B
R BINDING
N REDUCED

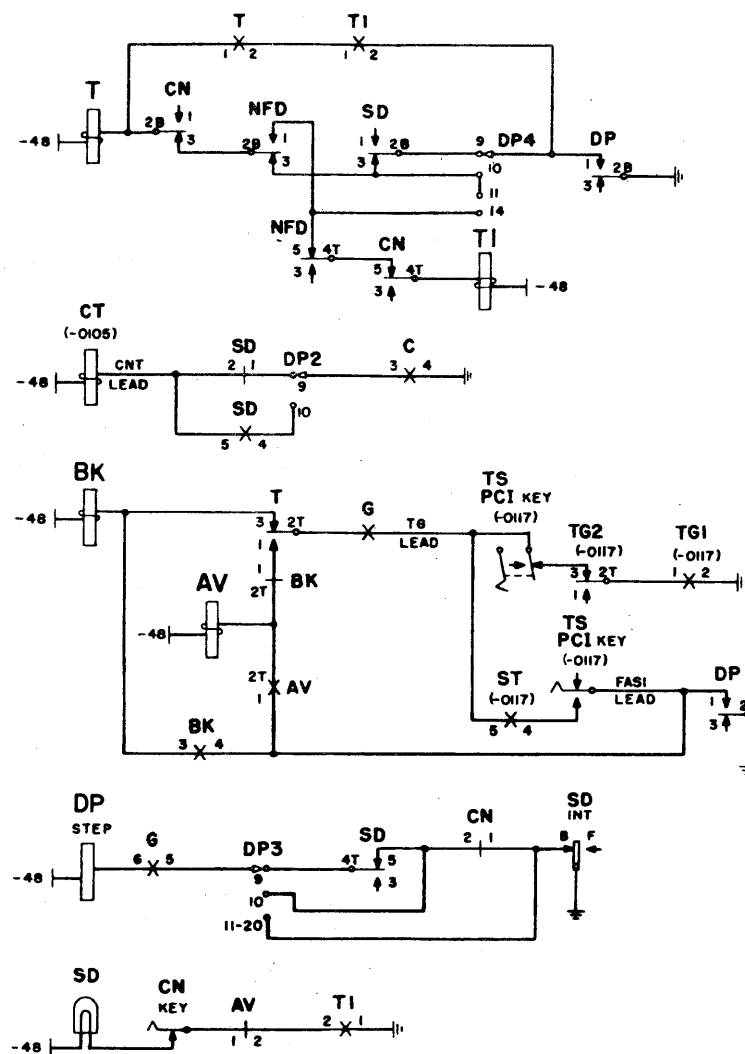


FIG. 46 - TEST OF NO STATIONS DELAY BY SENDER
SECTION - 0115-18

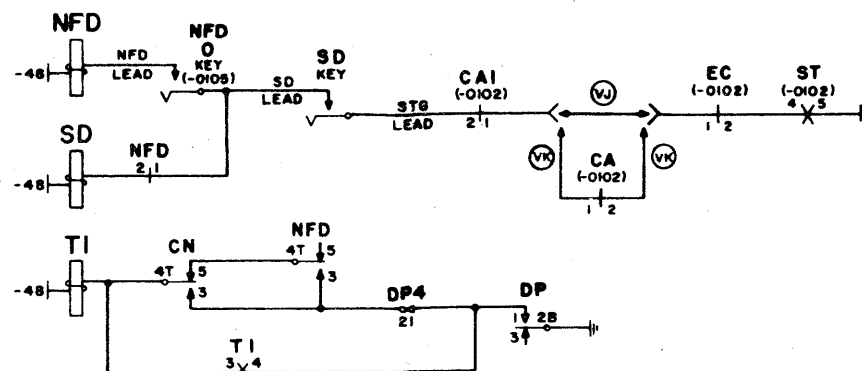


FIG. 47 - TEST OF STATIONS DELAY
FEATURE OF SENDER
SECTION - 0115-19

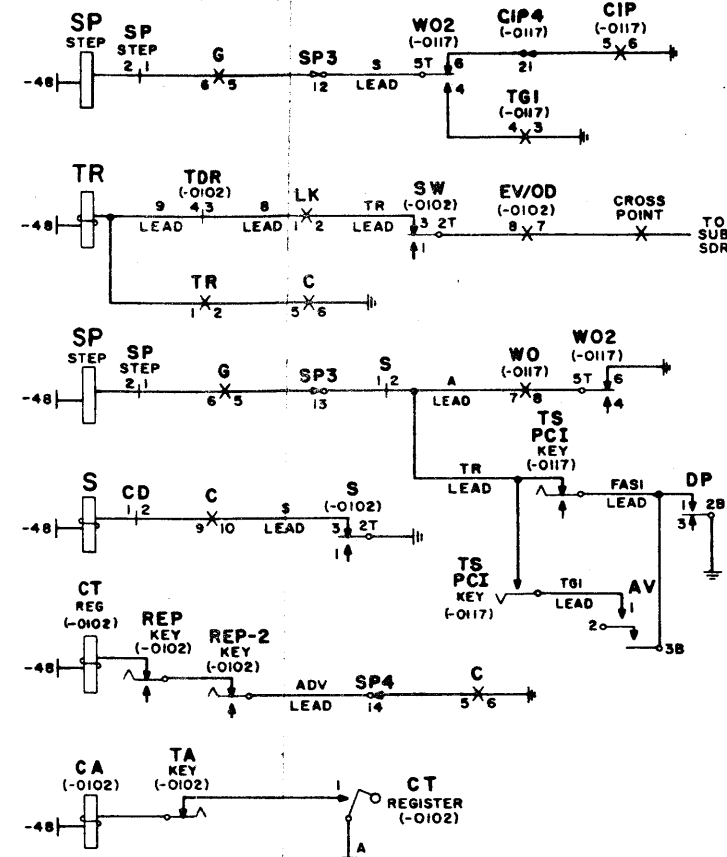


FIG. 48 - RELEASE
SECTION - 0115-23

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10

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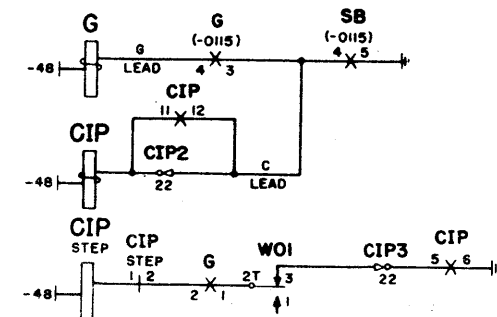
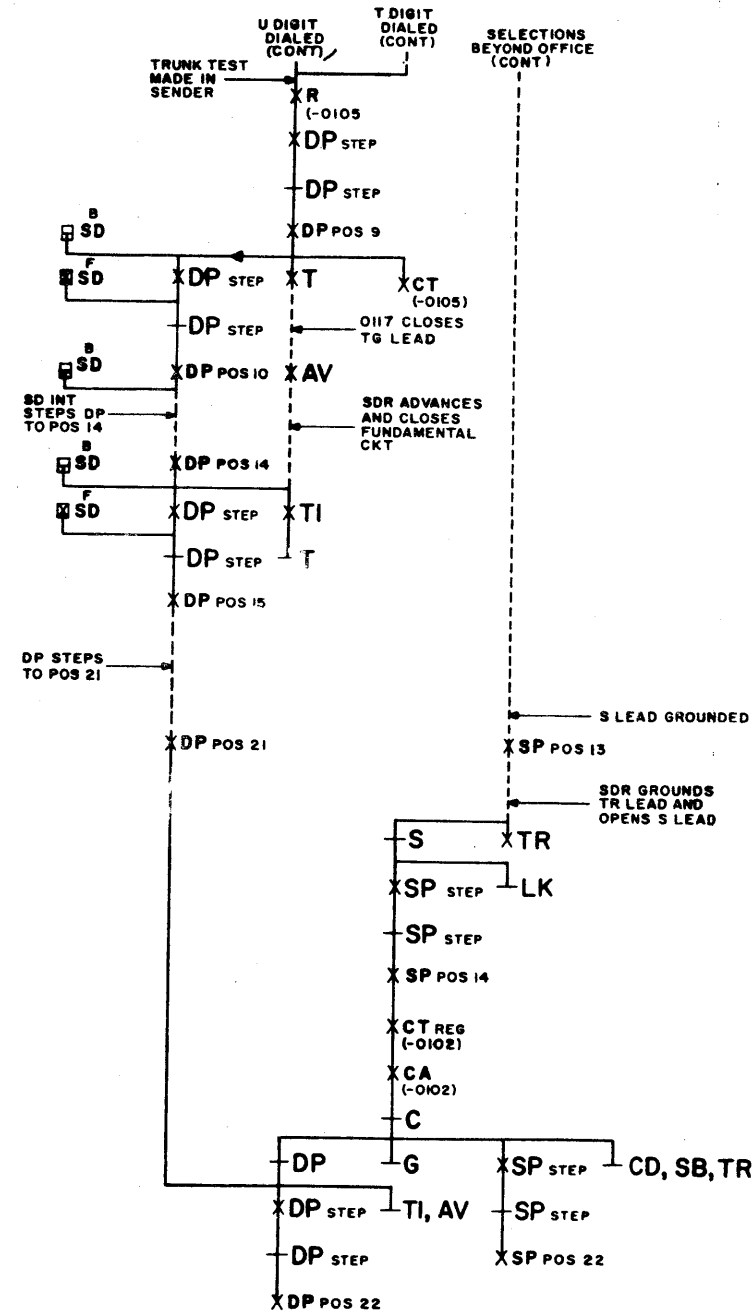
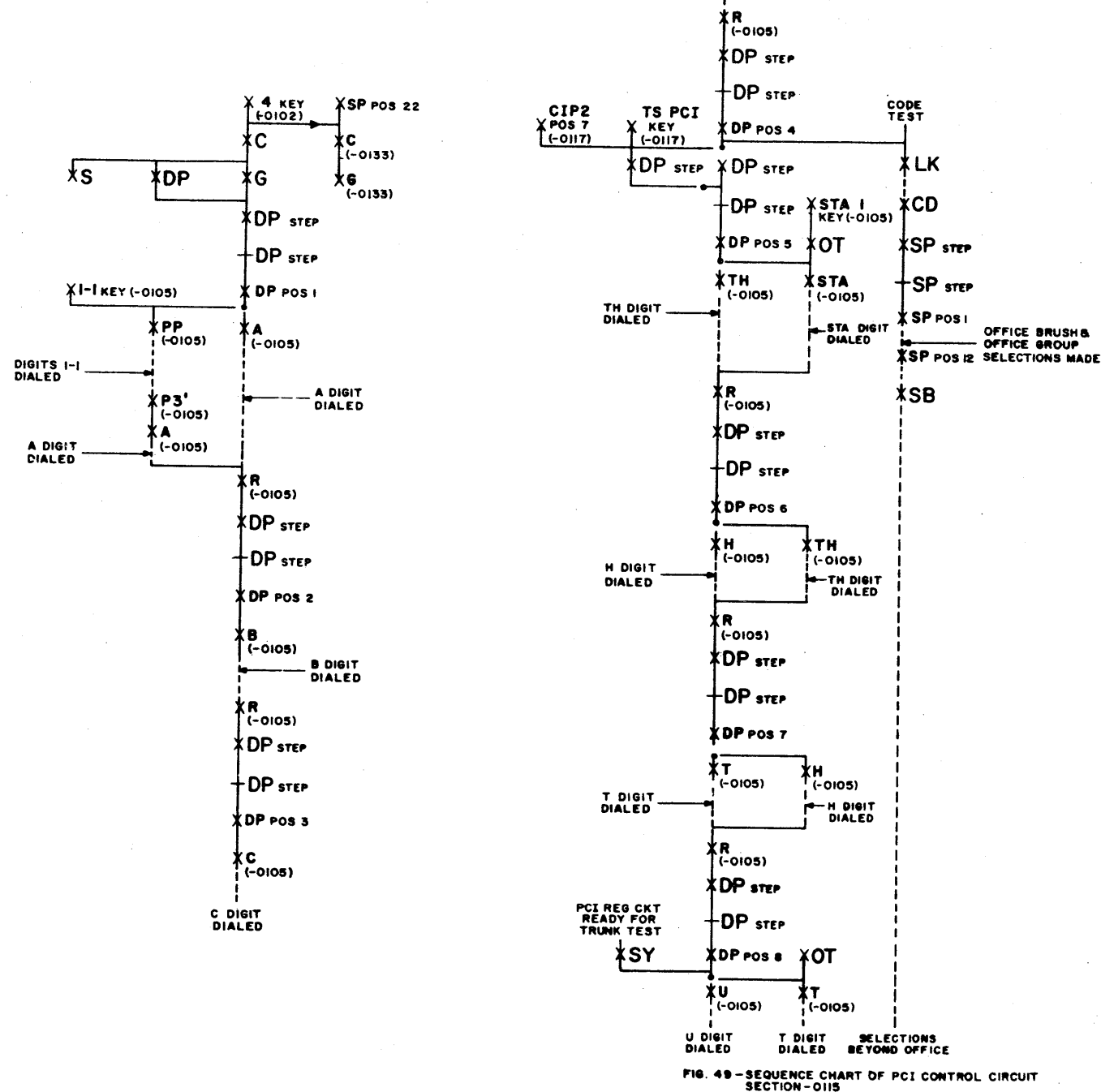
BELL TELEPHONE LABORATORIES
INCORPORATED

2
6S

ES-558991
SHEET 16

ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

A
B
C
D
E
F
G
H



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ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

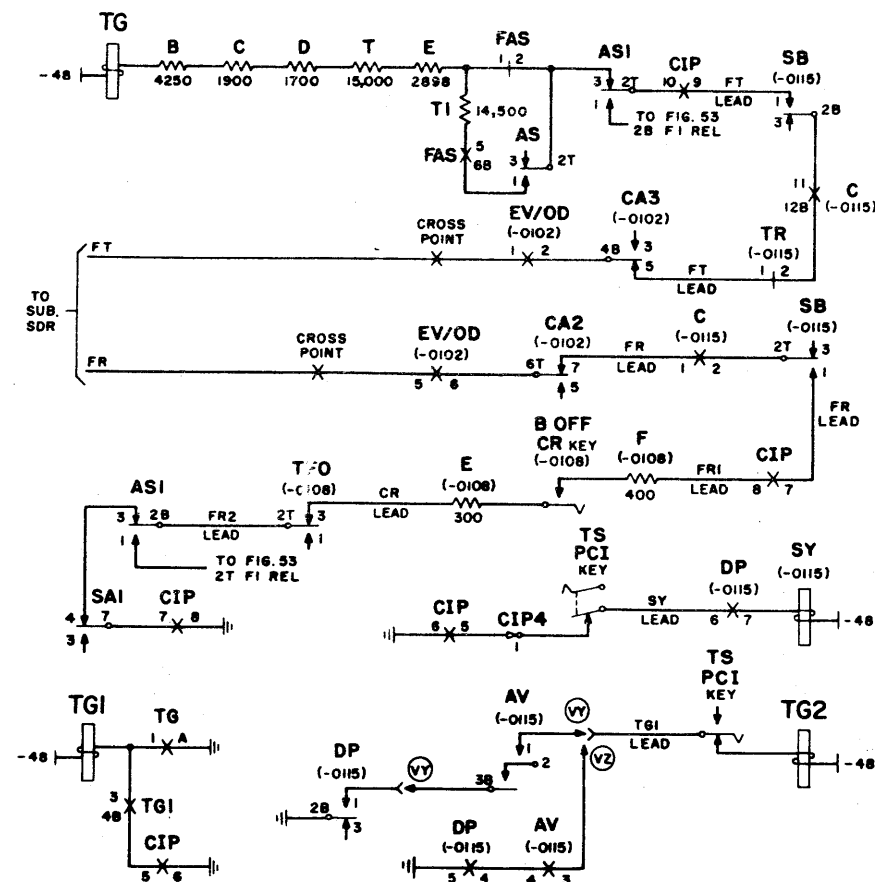


FIG. 51 - SYNCHRONIZING TEST FOR TRUNK CLOSURE
SECTION - 0117-8

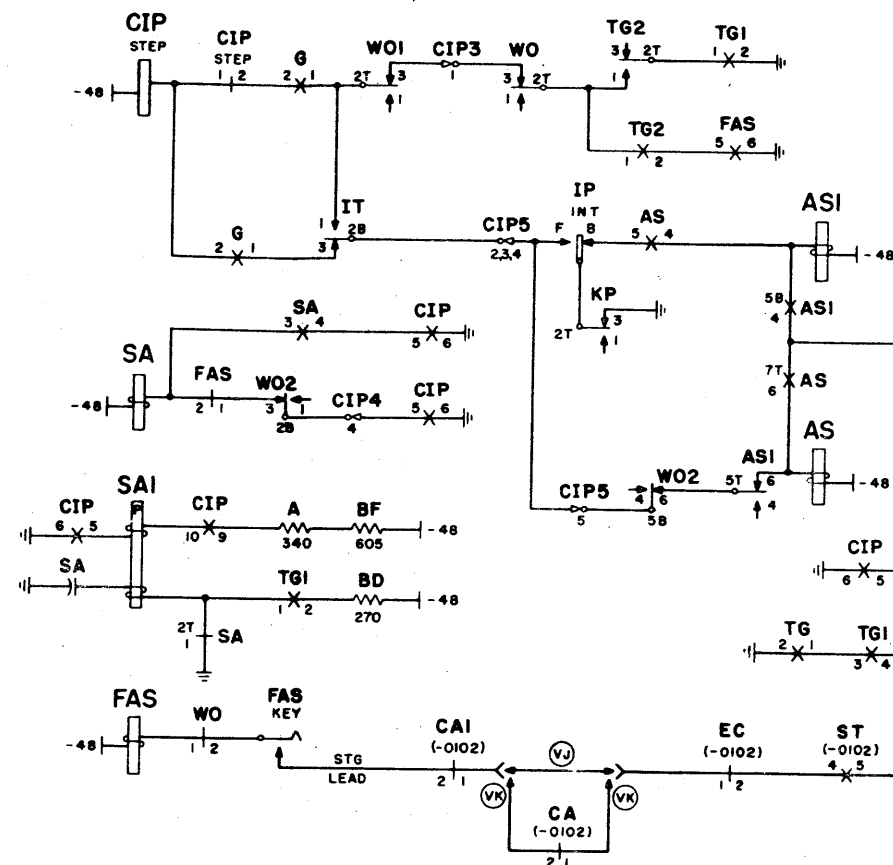


FIG. 52 - CHECK OF FAST AND SLOW ASSIGNMENTS
SECTION - 0117-7,8

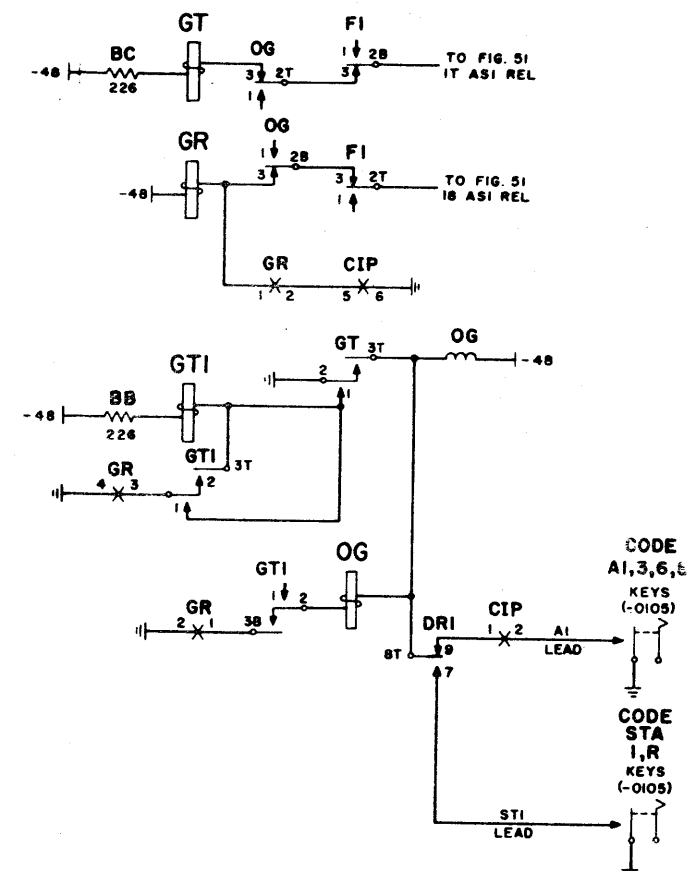
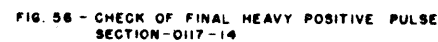


FIG. 53 - CHECKING THE GROUNDING OF THE FT AND FR LEADS
BY THE RENDER BEFORE SENDING PCI PULSES
SECTION - 0117-9

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LOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

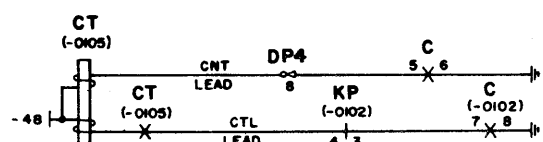
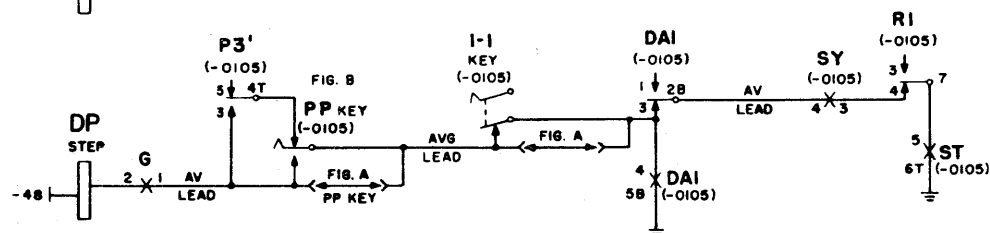
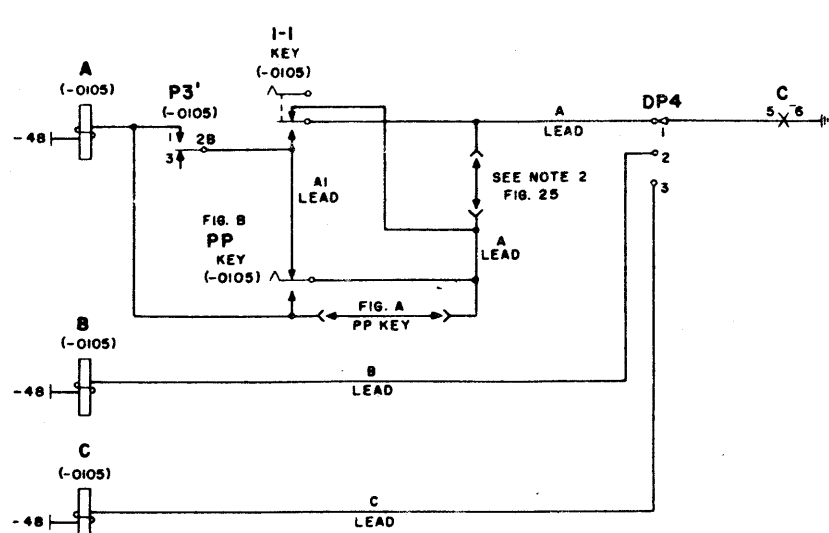


FIG. 59 - DIALING OF THE CODE AND NUMBER
SECTION - 0119-6

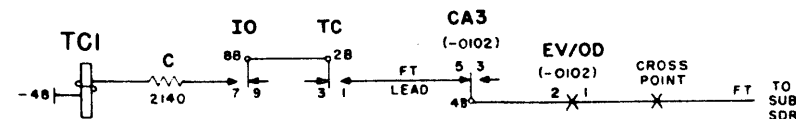
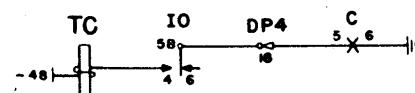
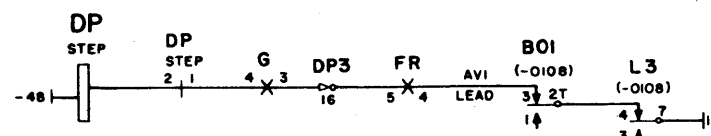
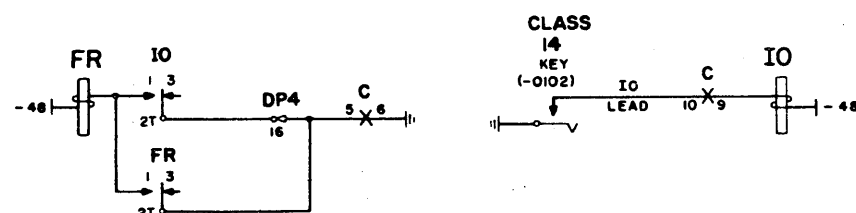


FIG. 62 - INCOMING OVERFLOW TEST - NO. 14 CLASS KEY
SECTION - 0119-12

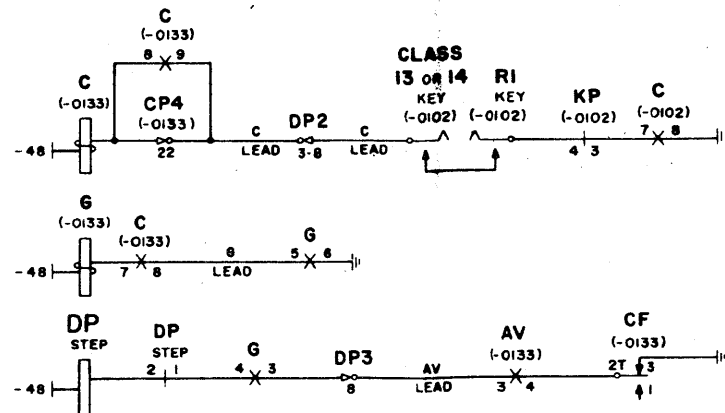


FIG. 60 - CODE CHECK
SECTION - 0119-7

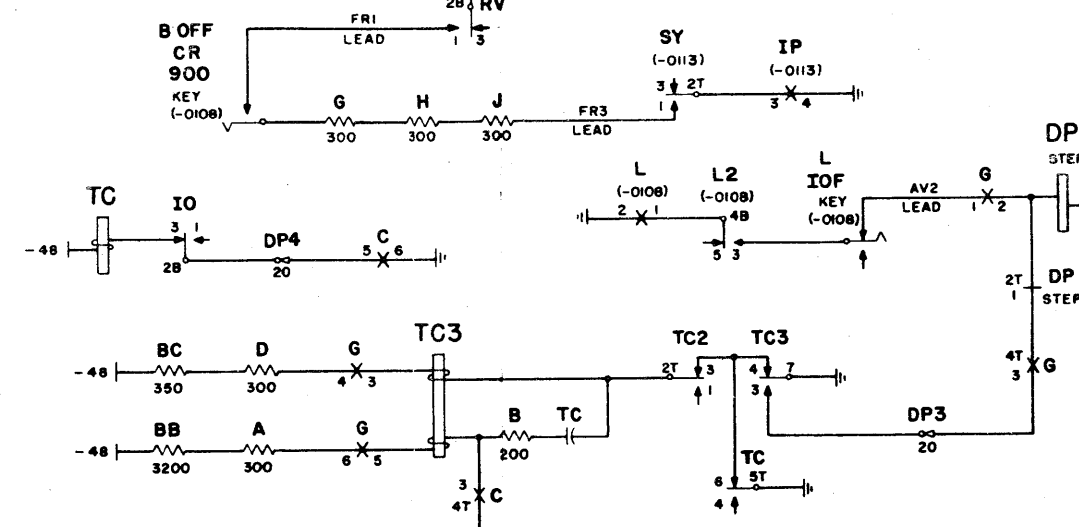
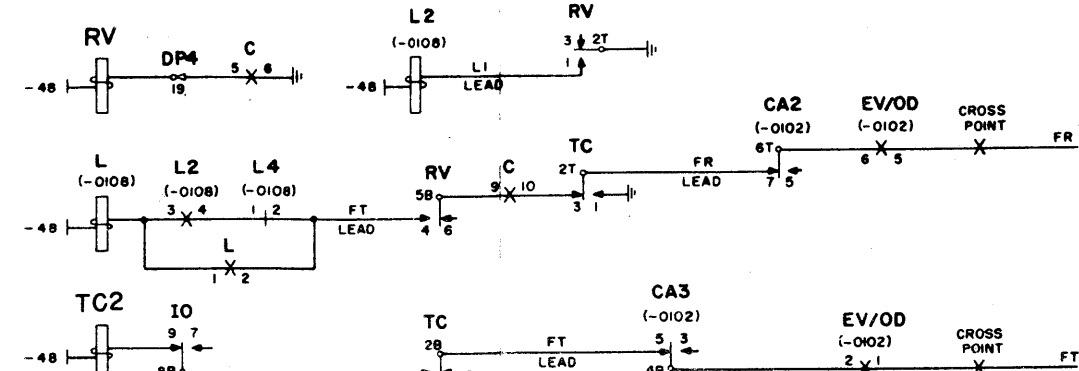
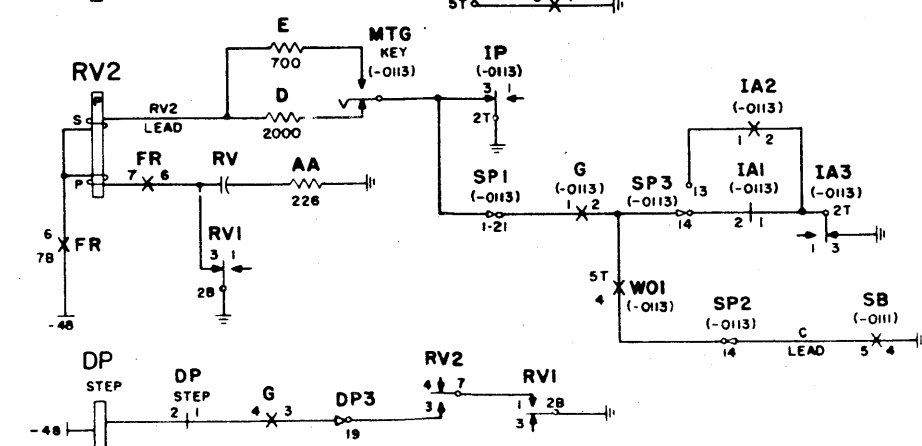
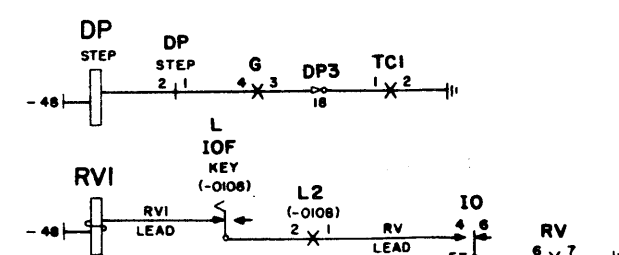


FIG. 61 - OFFICE OVERFLOW TEST - NO. 13 CLASS KEY
SECTION - 0119-11



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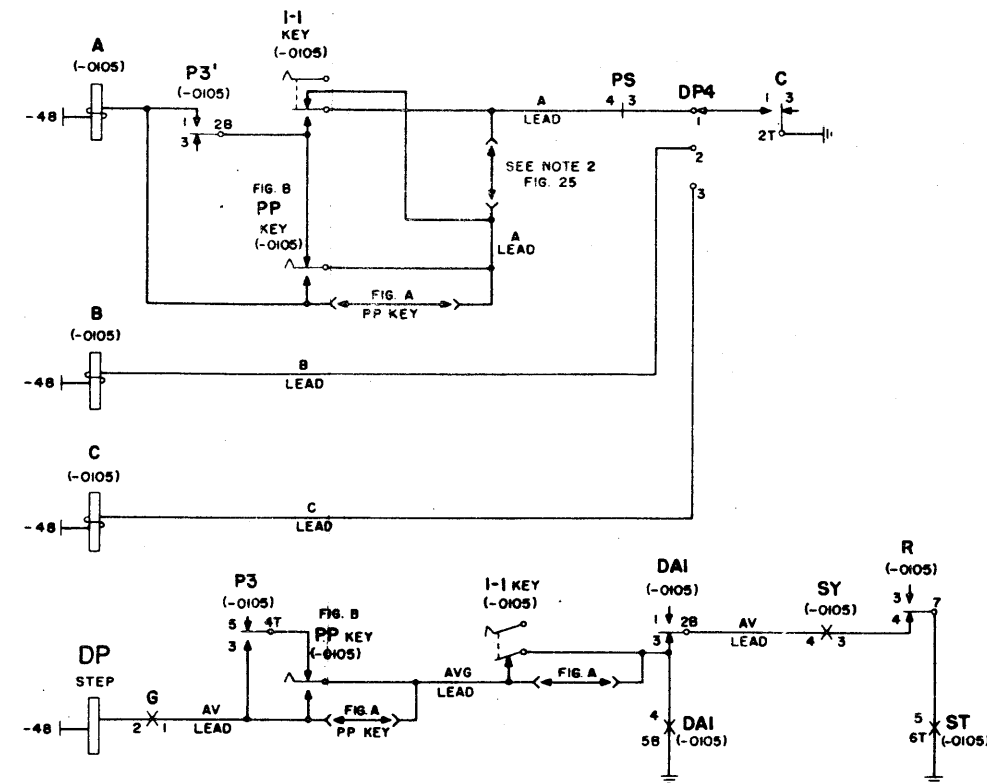
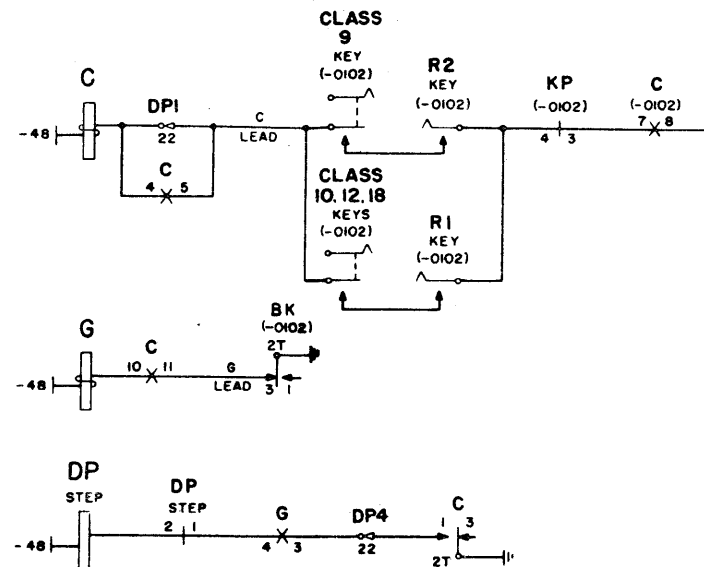
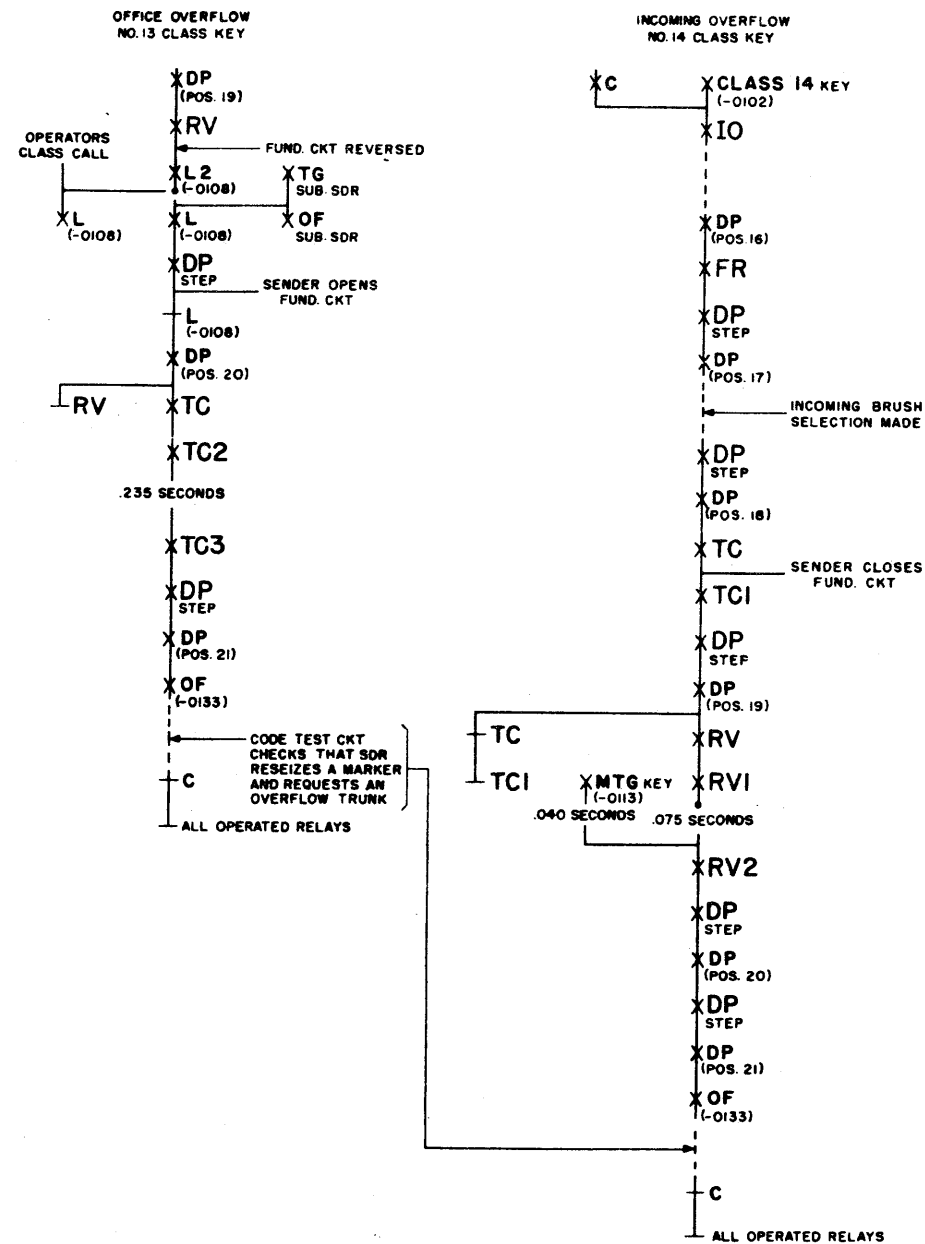
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BELL TELEPHONE LABORATORIES
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10

ALLOW 8 1/8 INCHES
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FOR BINDING
WHEN REDUCED

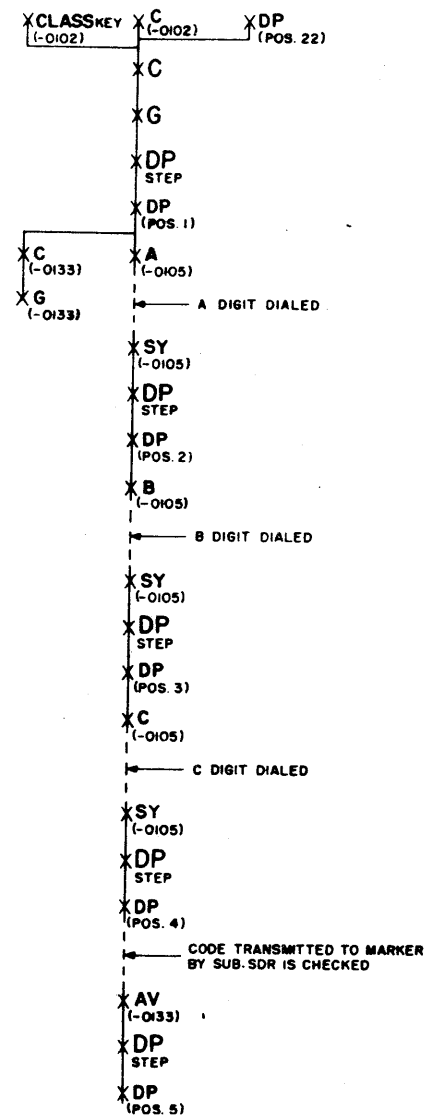


FIG. 66 - SEQUENCE CHART, SEIZURE AND DIALING
SECTION - 0121-5, 6, 7, 8

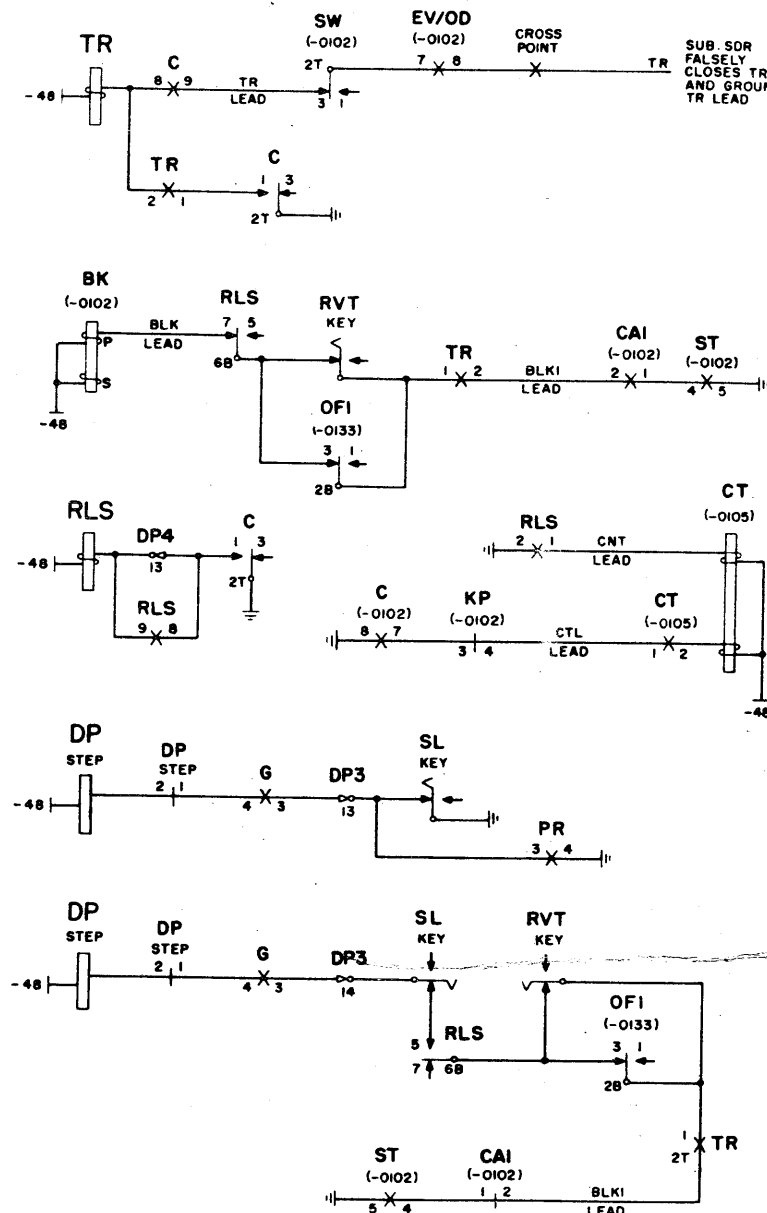


FIG. 67 - CHECK OF THE SENDER FOR AWAITING THE DIALING
OF ALL DIGITS BEFORE GROUNDING THE TR LEAD
SECTION - 0121-10

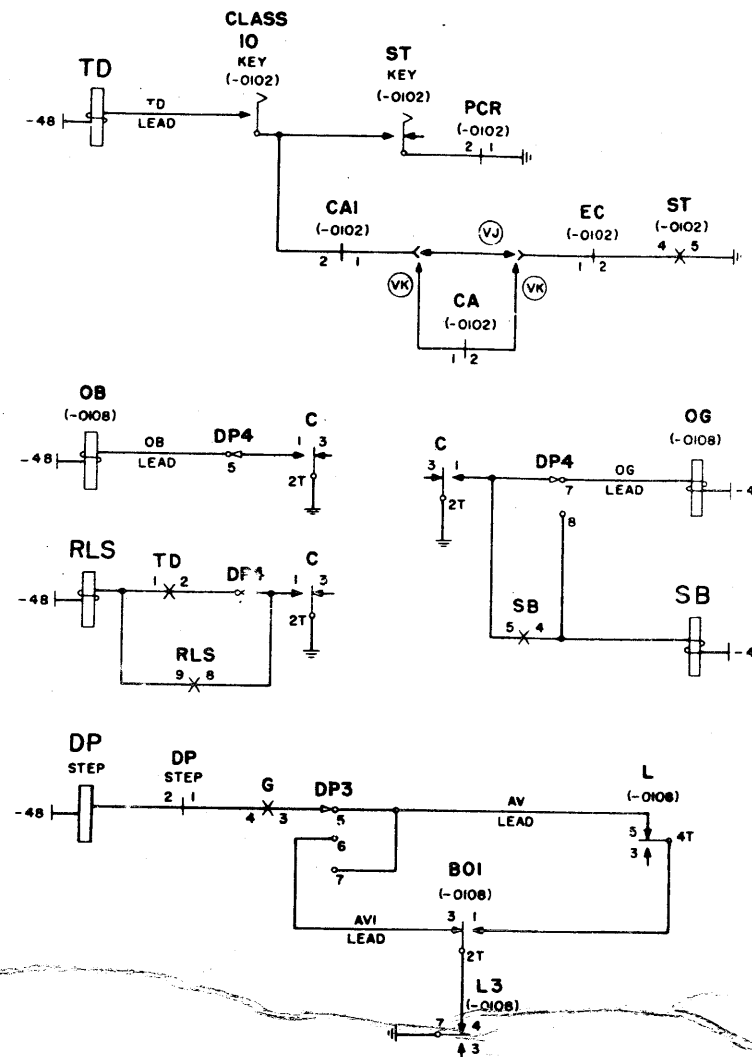
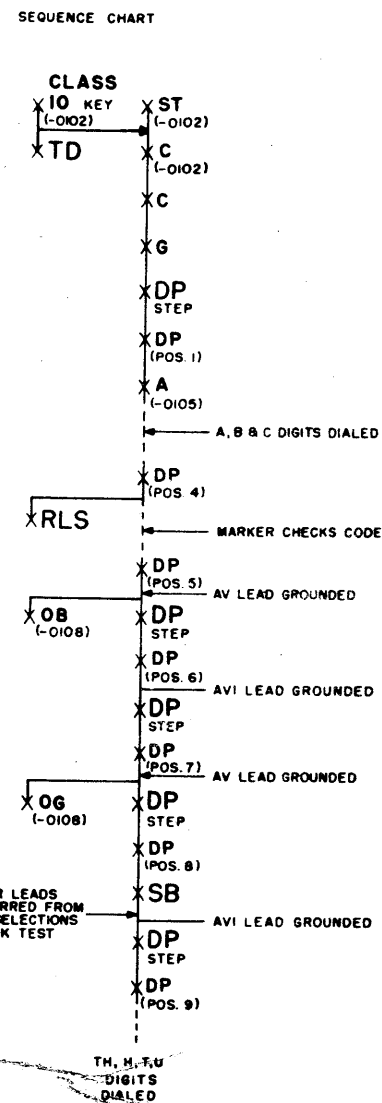


FIG. 68 - PANEL OR TANDEM CROSSBAR OFFICE SELECTIONS
CLASS NO. 10 KEY OPERATED
SECTION - 0121-12



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BELL TELEPHONE LABORATORIES
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10

LOW 8 3/8 INCHES
FOR BINDING
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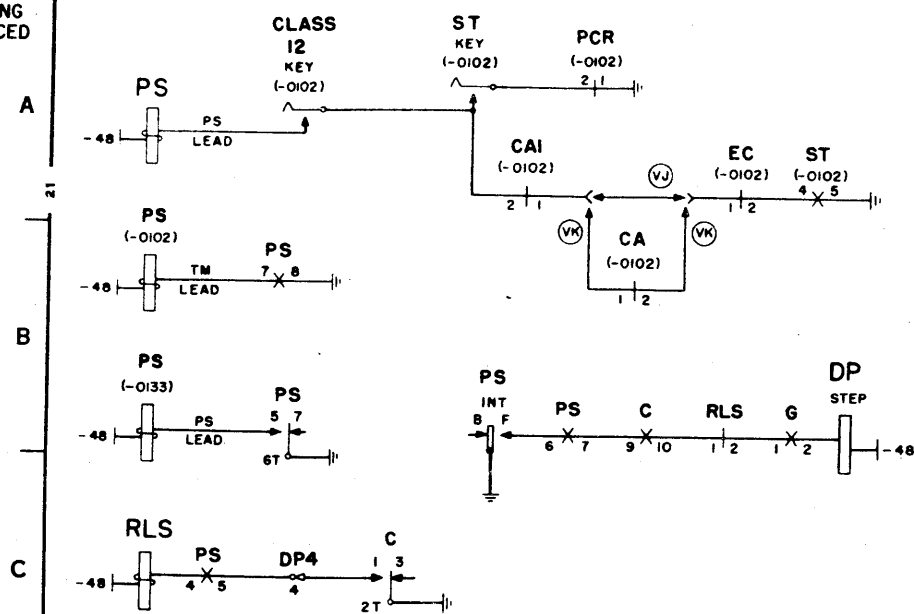


FIG. 69 - PERMANENT SIGNAL TEST MR CLASS KEY NO. 12 OPERATED, ZERO (B) & (C) CODE KEYS OPERATED SECTION - 0121-13

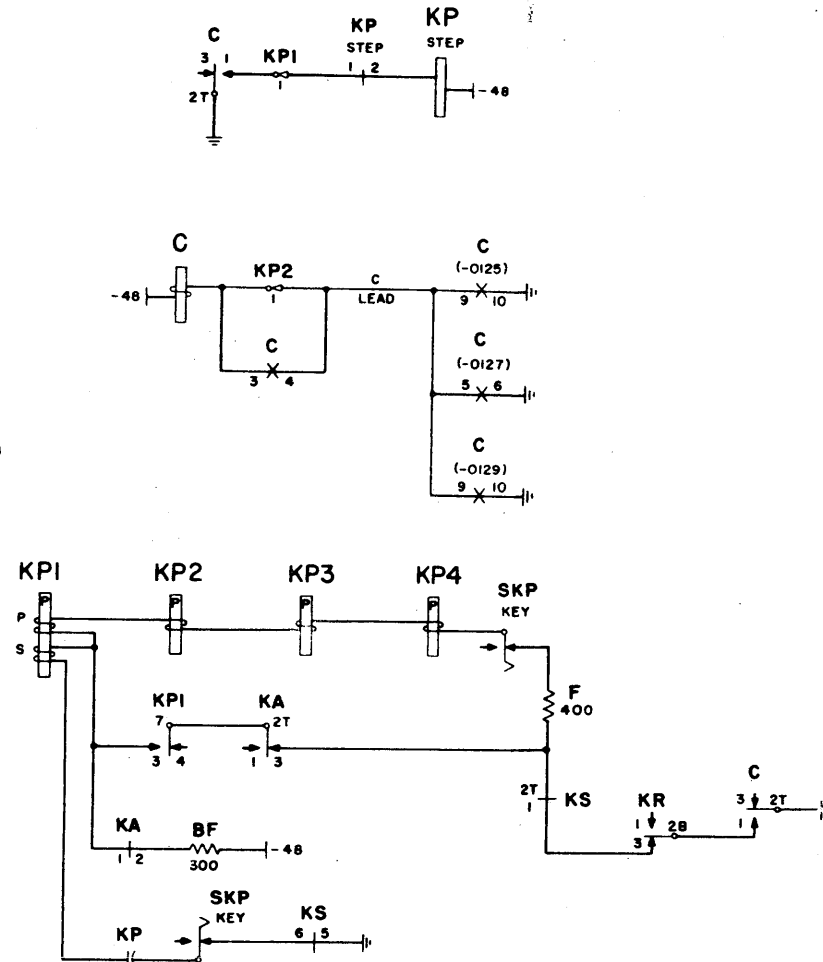


FIG. 70 - SEIZURE SECTION - 0123-5

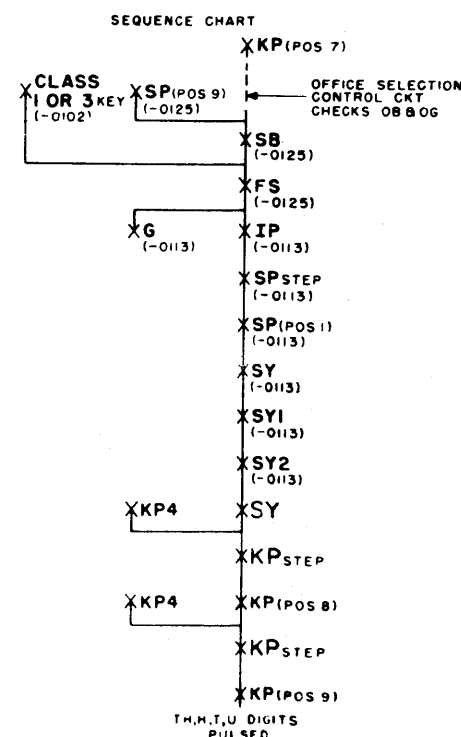


FIG. 72 - FULL SELECTOR CALL SECTION - 0123-7

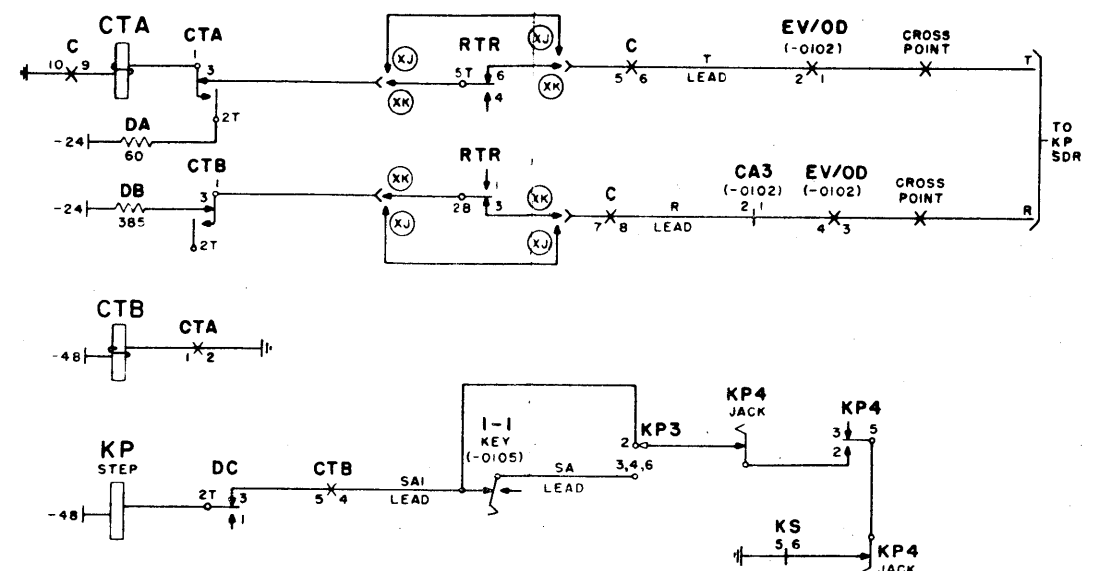
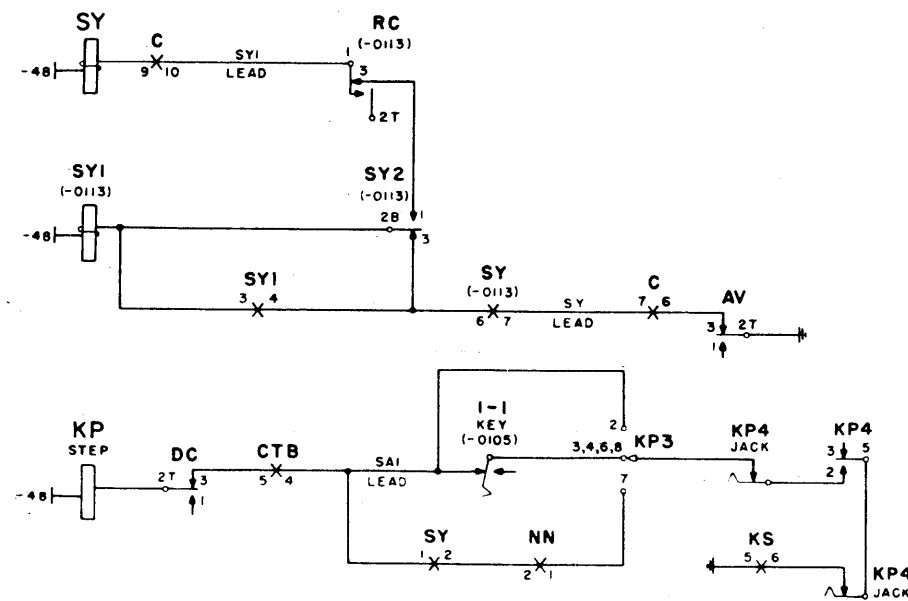
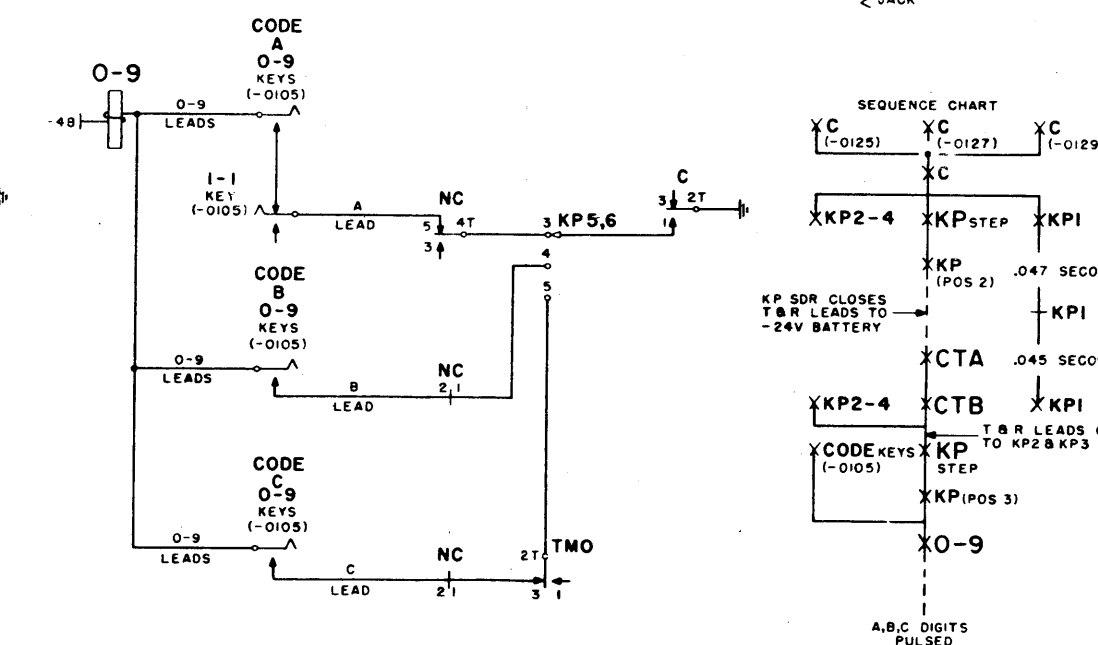


FIG. 71 - REGISTRATION SECTION - 0123-6



ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

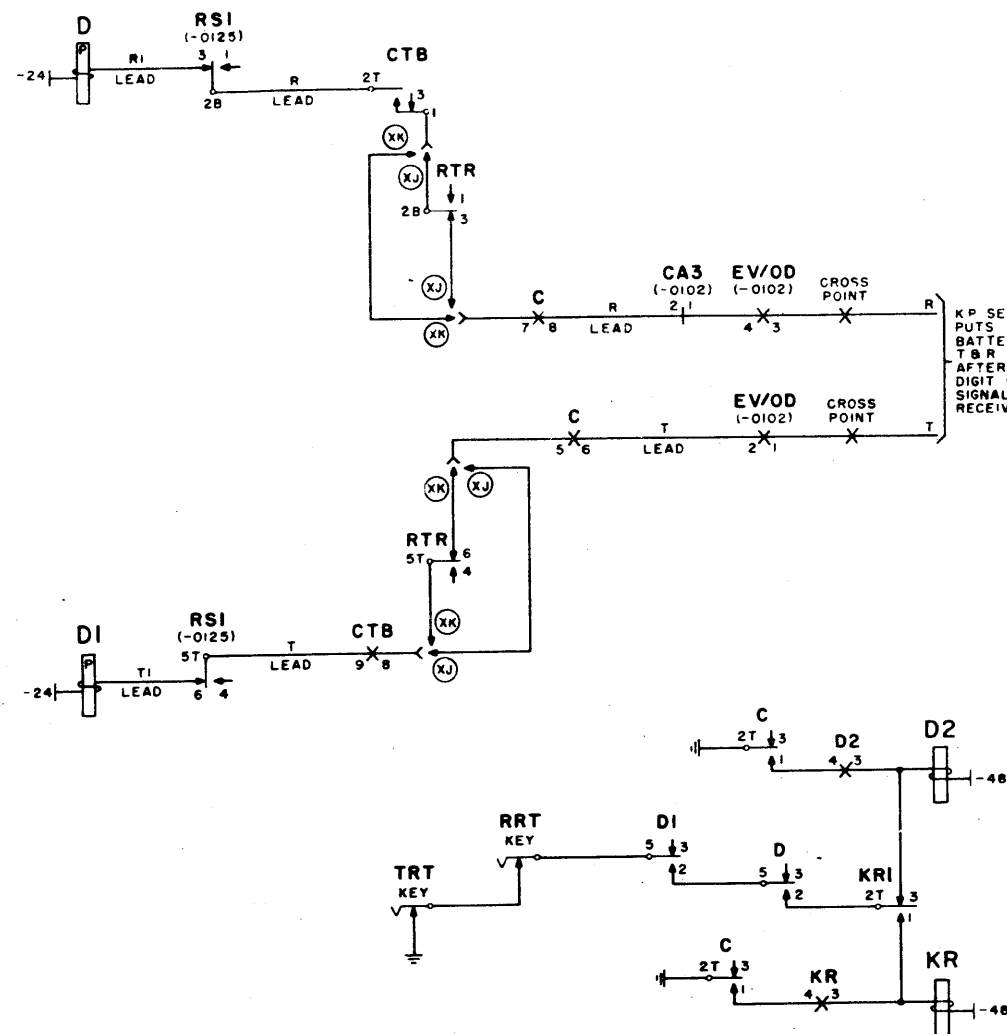


FIG. 73 - CHECK OF KEY RELEASE
SECTION - 0123-7.5

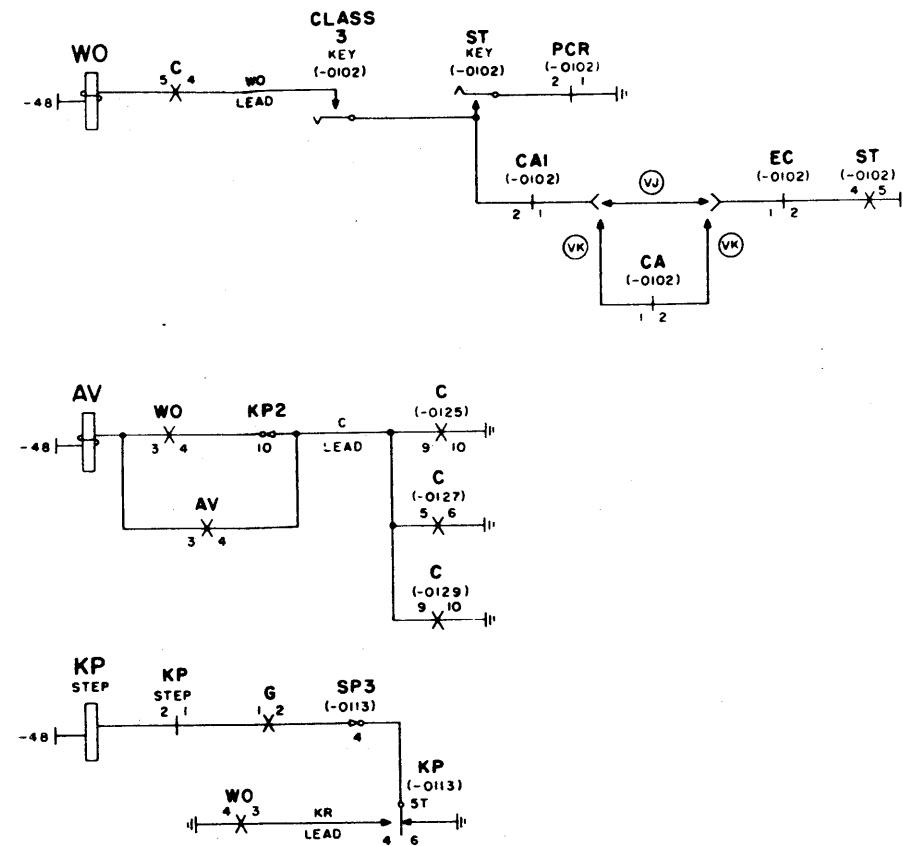


FIG. 74 - LATE RELEASE FULL SELECTOR -
INCOMPLETE NUMERICAL REGISTRATION
SECTION - 0123-8

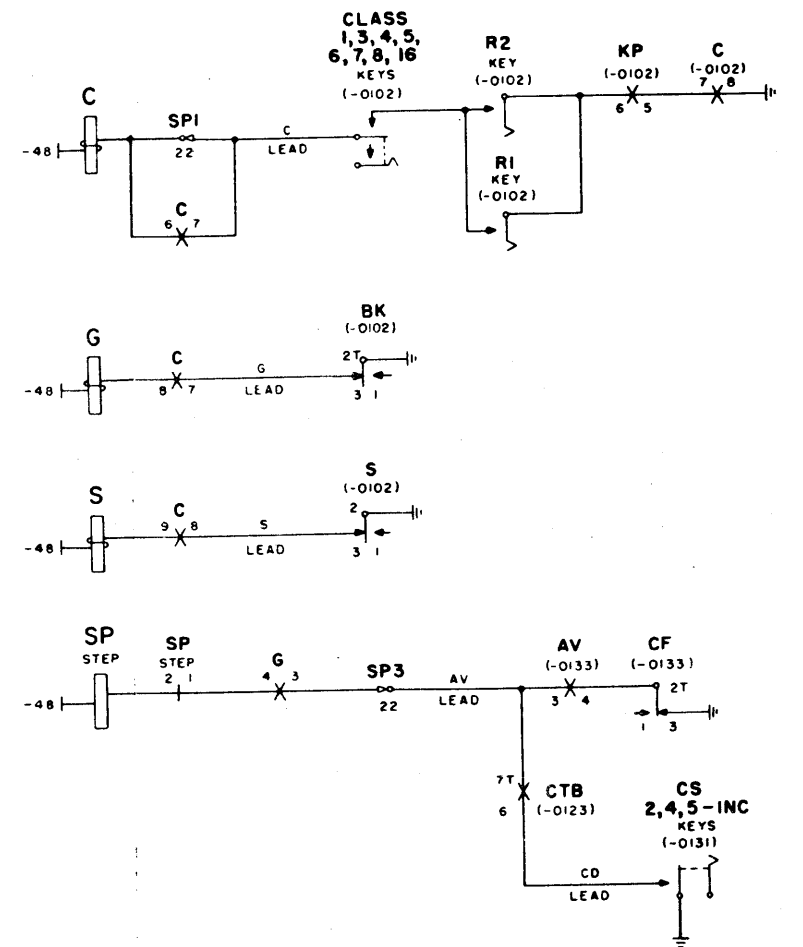


FIG. 75 - SEIZURE, AWAITING PULSING AND
CHECK OF CODE
SECTION - 0125-5,6

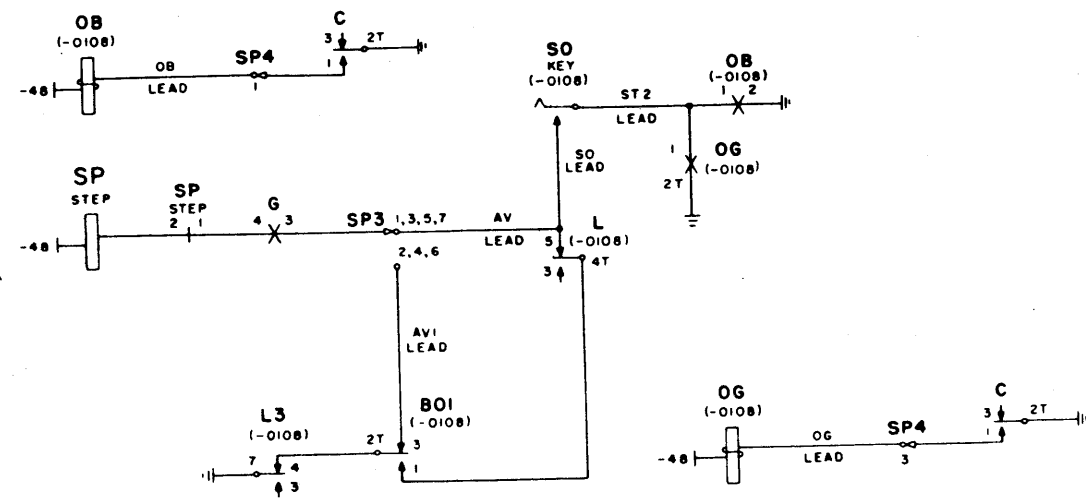


FIG. 76 - OFFICE BRUSH, OFFICE GROUP
AND SKIP OFFICE SELECTIONS
SECTION - 0125-7,8,10

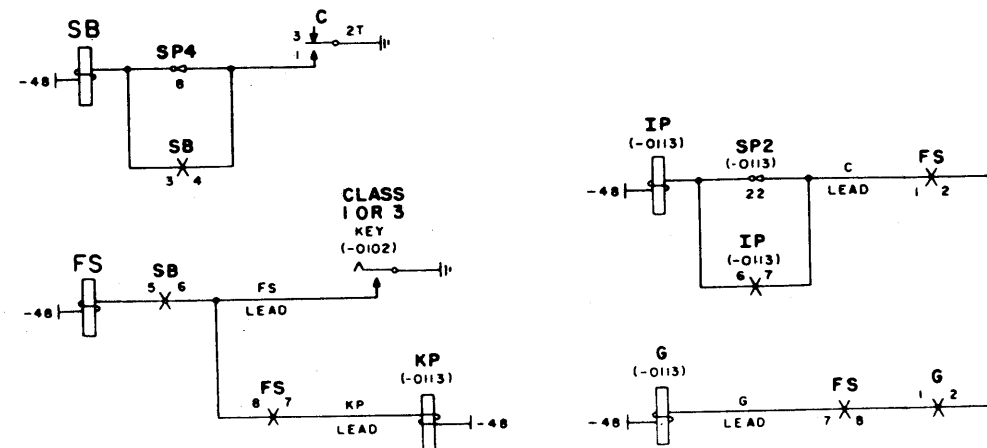


FIG. 77 - FULL SELECTOR TESTS - SEIZURE OF
INCOMING AND FINAL SELECTIONS
CONTROL CIRCUIT
SECTION - 0125-11.1

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10

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WHEN REDUCED

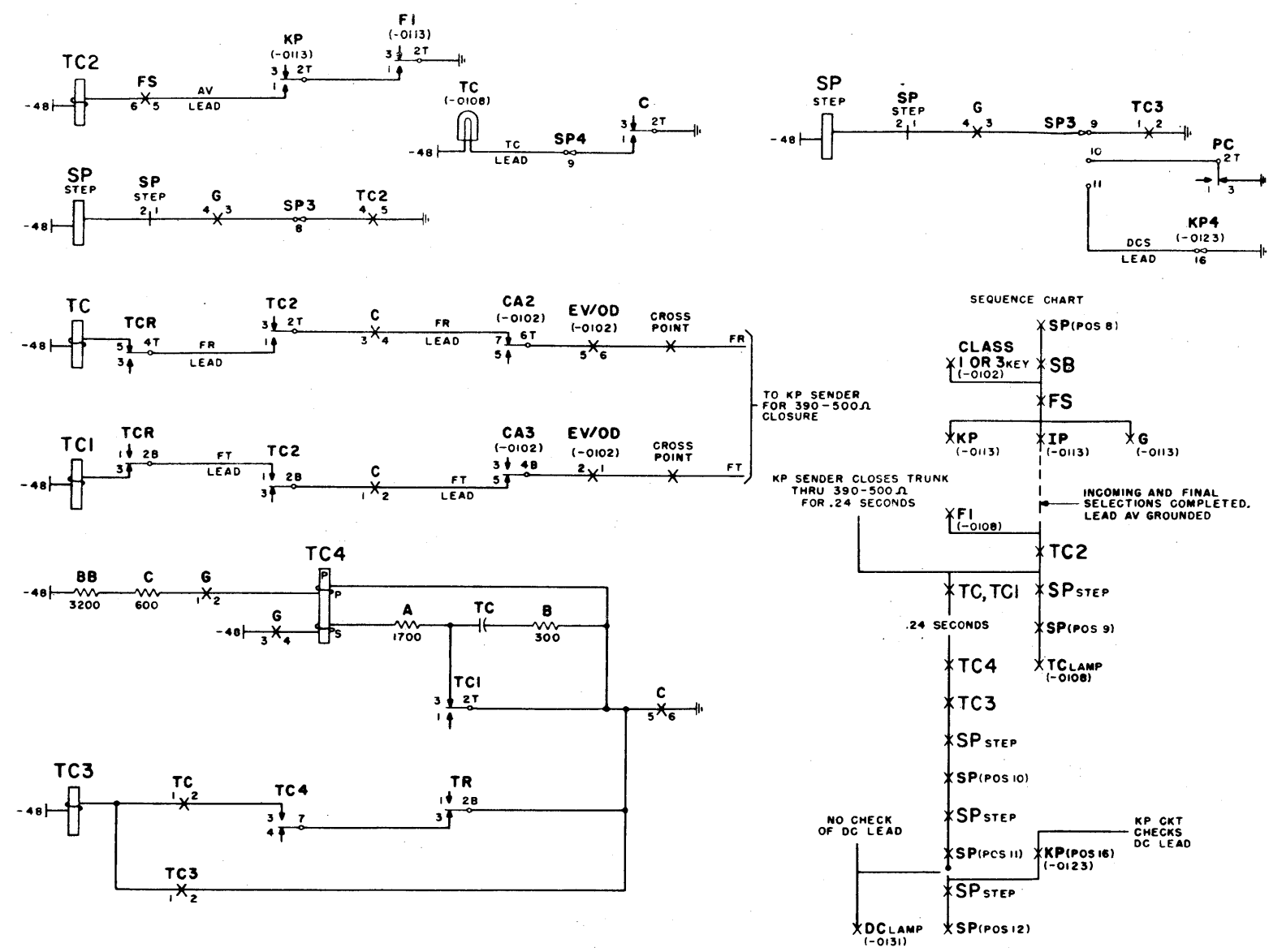


FIG. 78 - TRUNK CLOSURE TEST
SECTION-0125-11.2

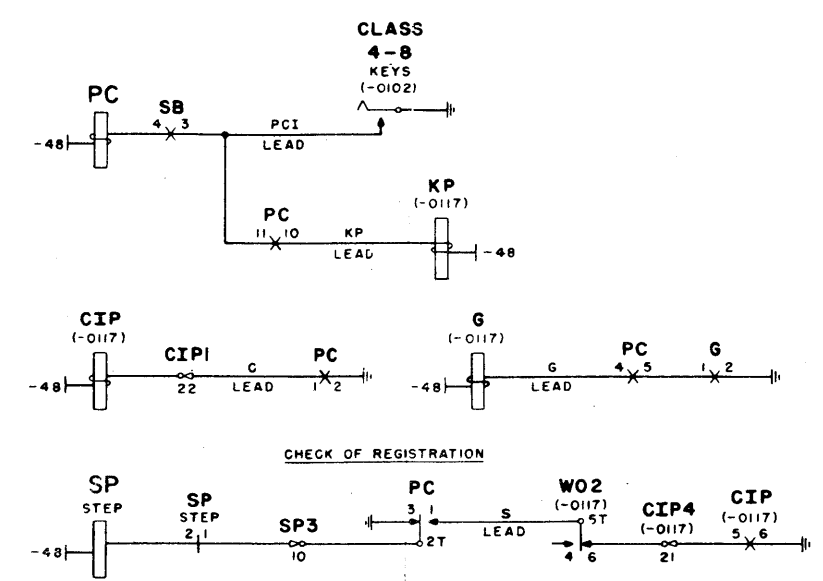


FIG. 79 - CALL INDICATOR CALLS-SEIZURE PCI REGISTER CIRCUIT
SECTION-0125-12

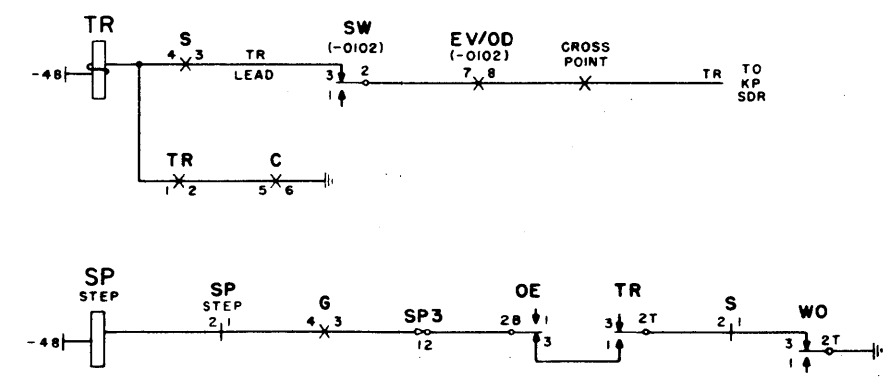


FIG. 80 - CHECK OPERATION OF TR AND DC RELAYS, AND RELEASE OF S RELAY
SECTION-0125-13

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LOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

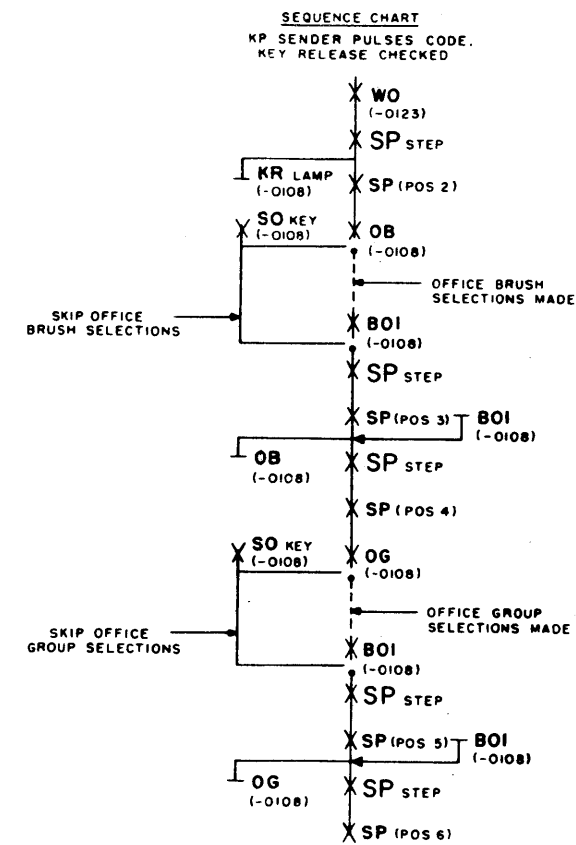
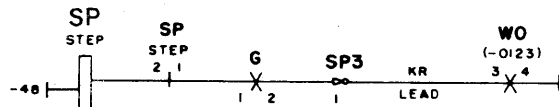
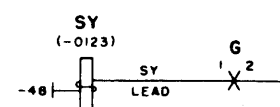
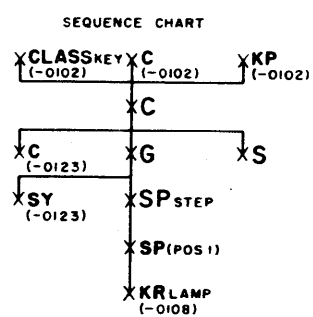
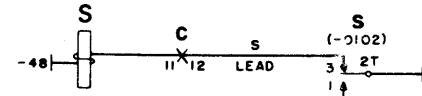
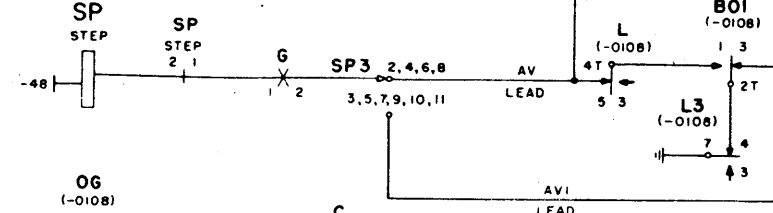
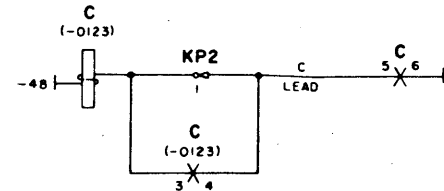
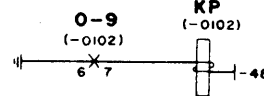
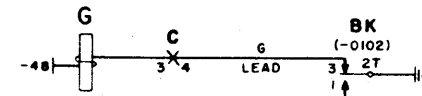
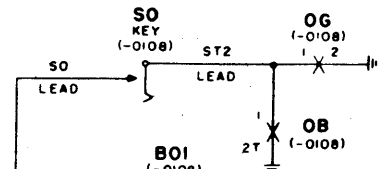
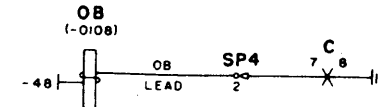
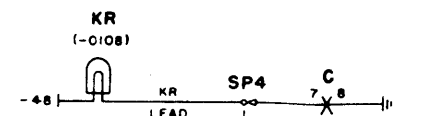
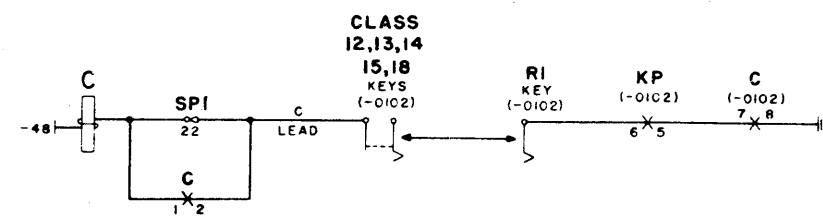


FIG. 81 - SEIZURE SECTION -0127-5

FIG. 82 - CHECKING OF THE KEY RELEASE SECTION -0127-6

FIG. 83 - OFFICE BRUSH & OFFICE GROUP SELECTIONS, SKIP OFFICE SELECTION SECTION -0127-7, 8, 10

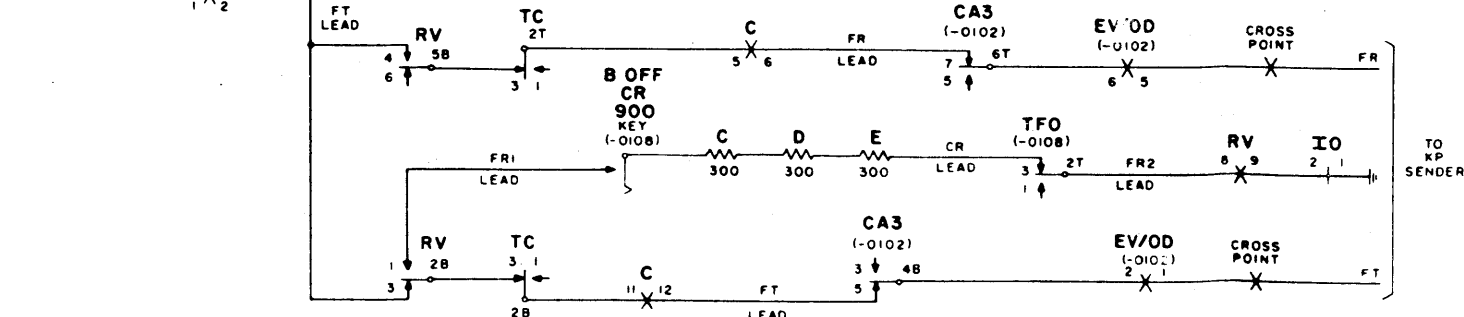
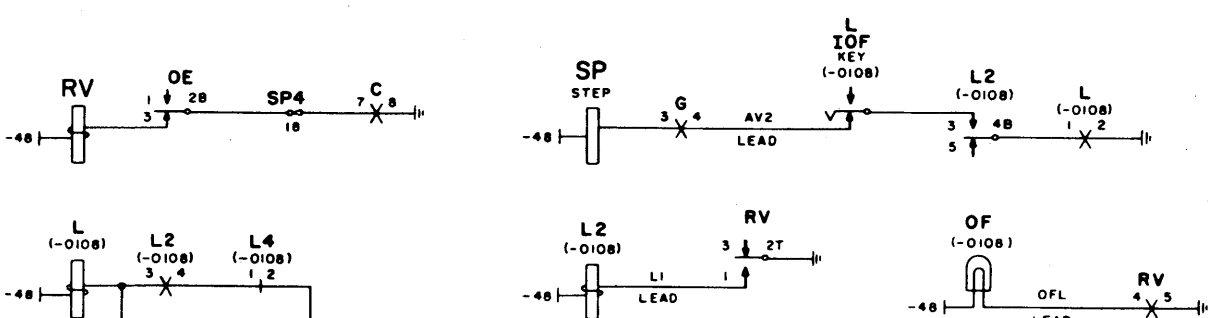


FIG. 84 - OFFICE OVERFLOW TEST SECTION -0127-12

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ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

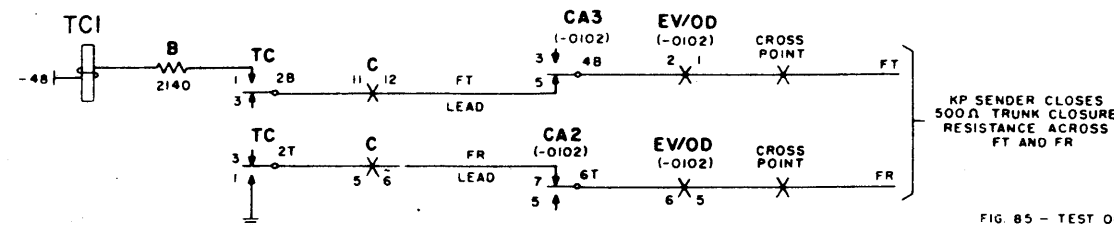
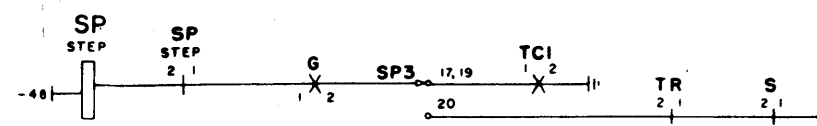
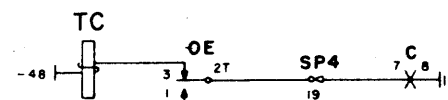
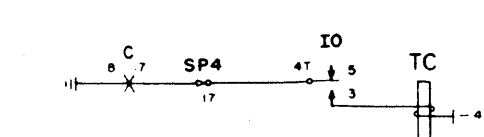
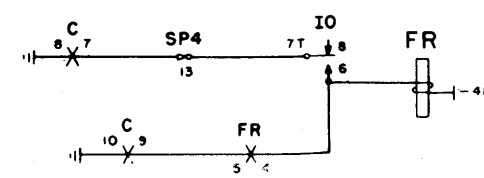
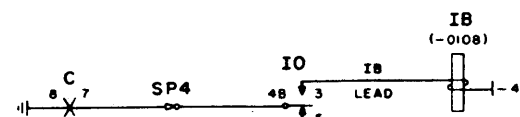
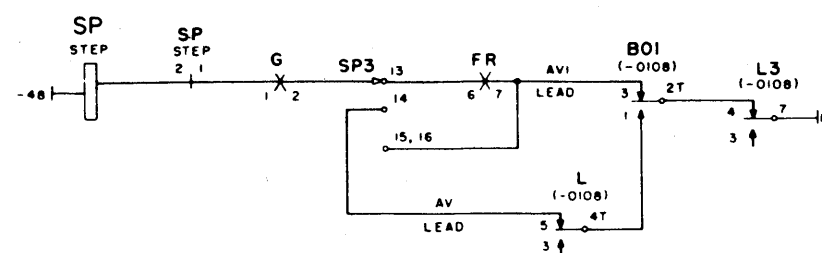
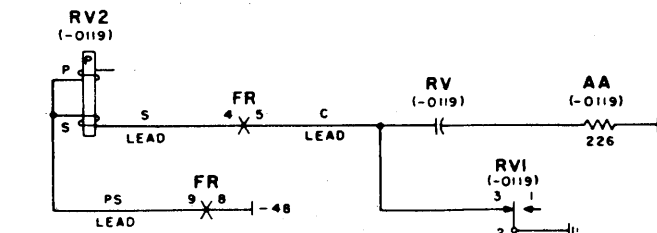
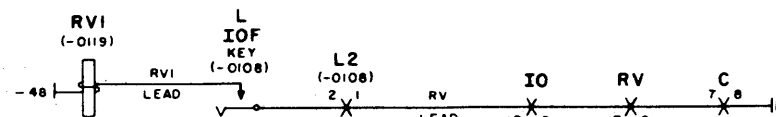
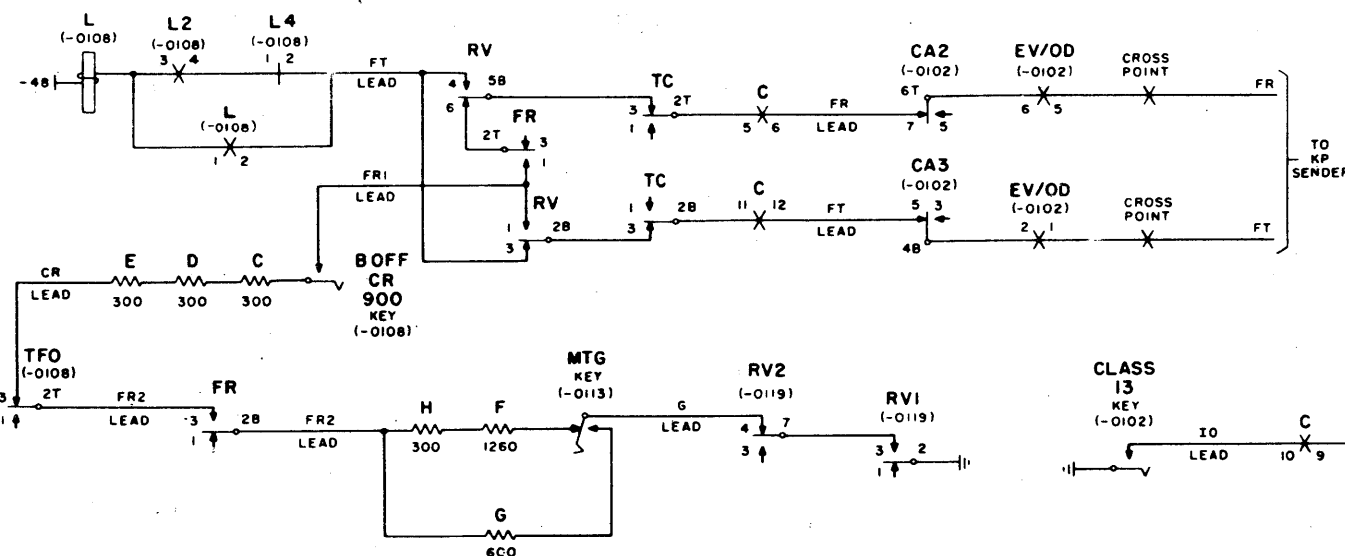


FIG 85 - TEST OF TRUNK CLOSURE
SECTION - 0127-13



SEQUENCE CHART

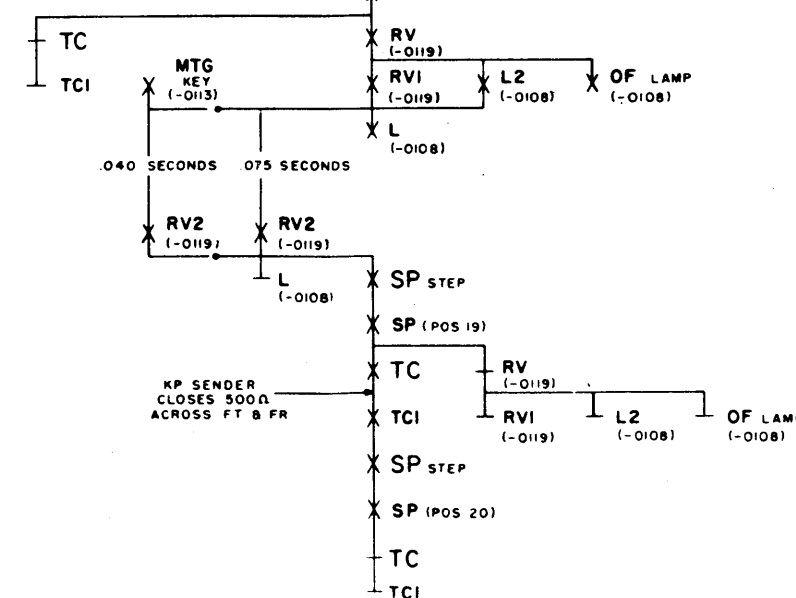
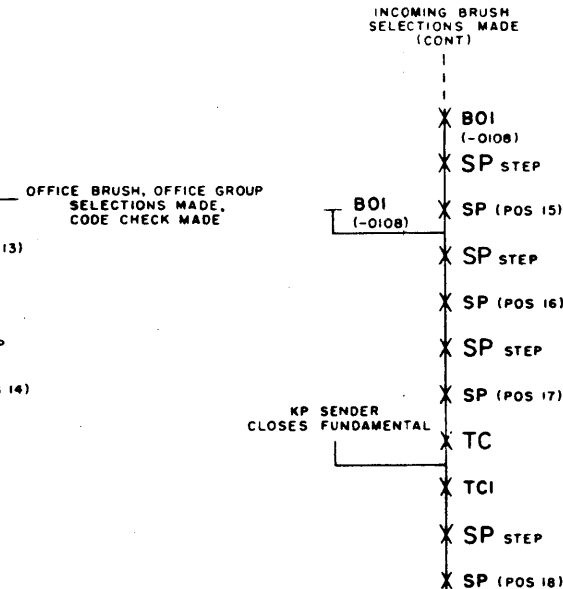
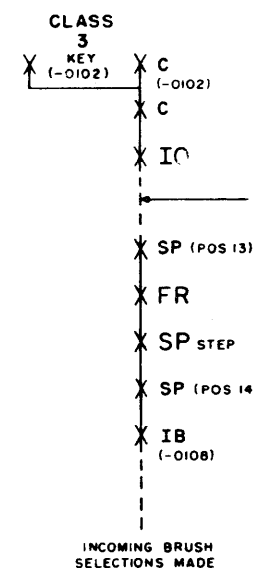


FIG 86 - INCOMING OVERFLOW
SECTION - 0127-15

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BELL TELEPHONE LABORATORIES
INCORPORATED

2
6S

ES-558991
SHEET 27

ISSUE
10

ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

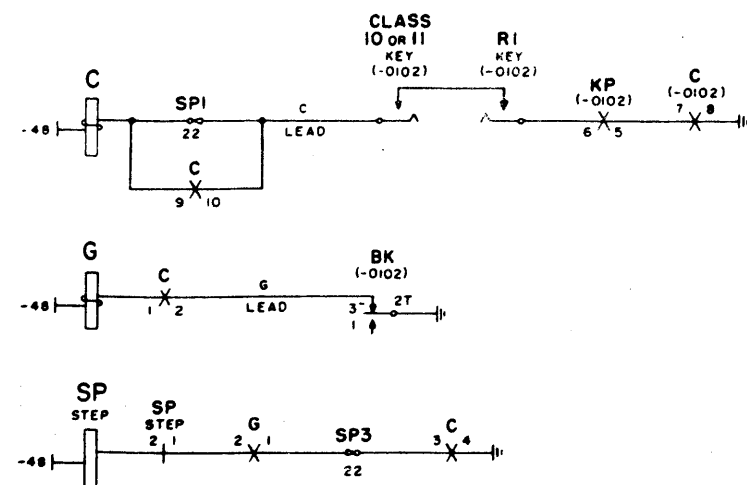


FIG. 87 - SEIZURE
SECTION - 0129-5

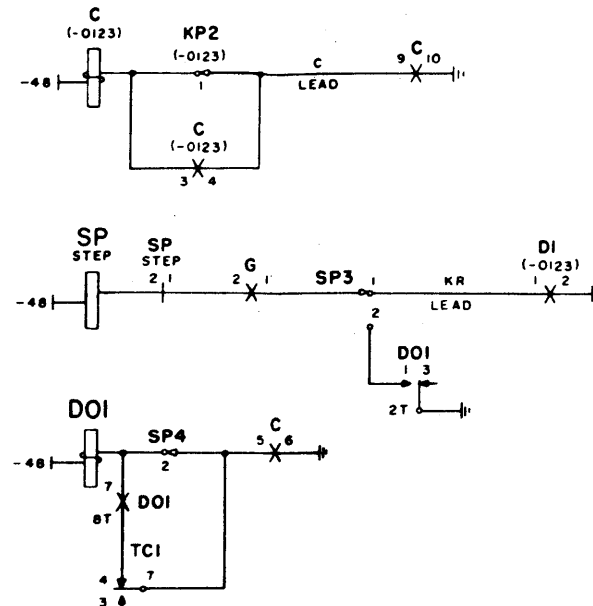


FIG. 88 - SEIZURE OF KP CIRCUIT
SECTION - 0129-6

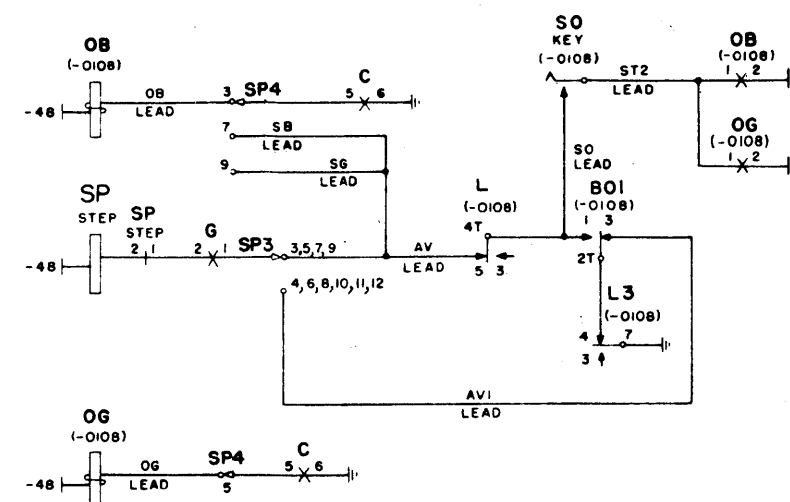


FIG. 89 - OFFICE BRUSH AND OFFICE GROUP SELECTIONS, SKIP OFFICE SELECTION
SECTION - 0129-7, 8, 9

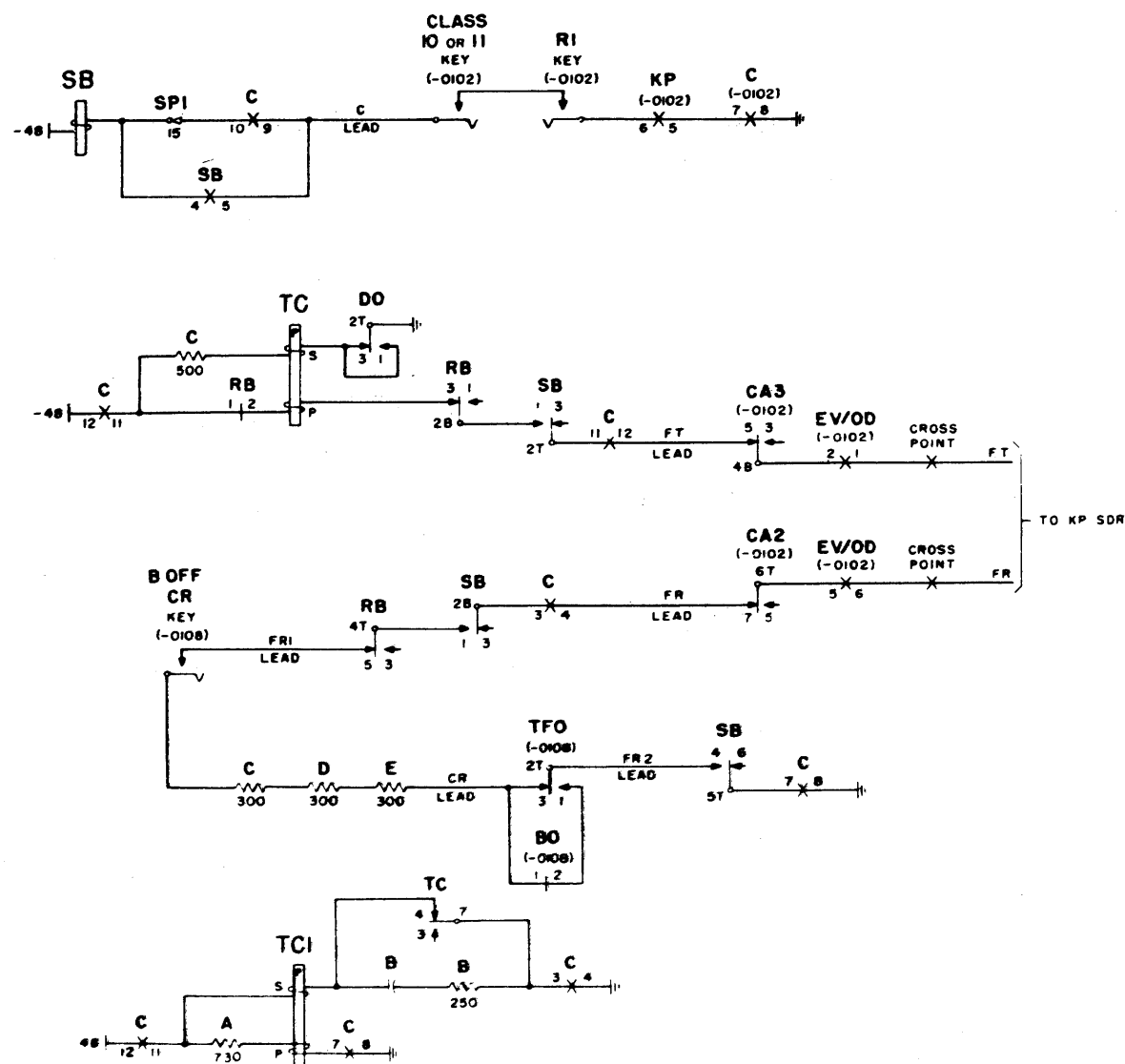
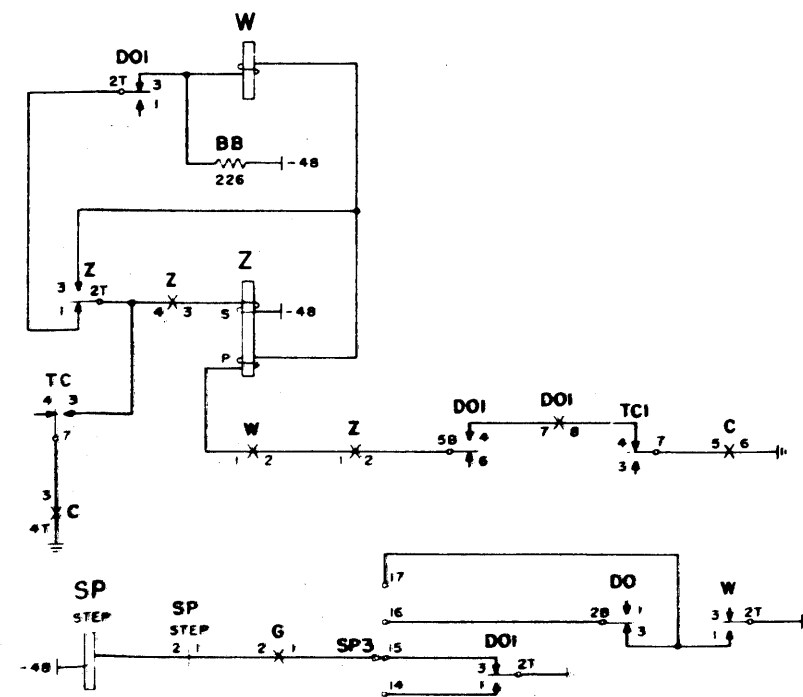


FIG. 90 - TRUNK TEST - NO DISTANT OFFICE SELECTOR
SECTION - 0129-12



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CD-25221-01

BELL TELEPHONE LABORATORIES
INCORPORATED

2

ES-558991
SHEET 28

6S

ISSUE
10

ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

SEQUENCE CHART

IO OR II
CLASS
KEY(-0102)
C
G
SP
STEP
SP
STEP
SP(POS 1)
C
(-0123)
3 DIGITS
PULSED
INTO KP SDR

SKIP
OFFICE
BRUSH
SELECTIONS

SKIP
OFFICE
GROUP
SELECTIONS

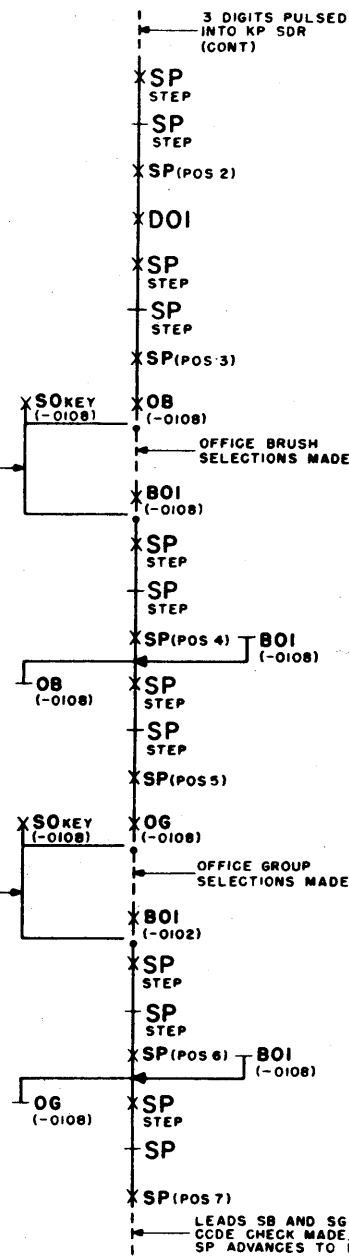
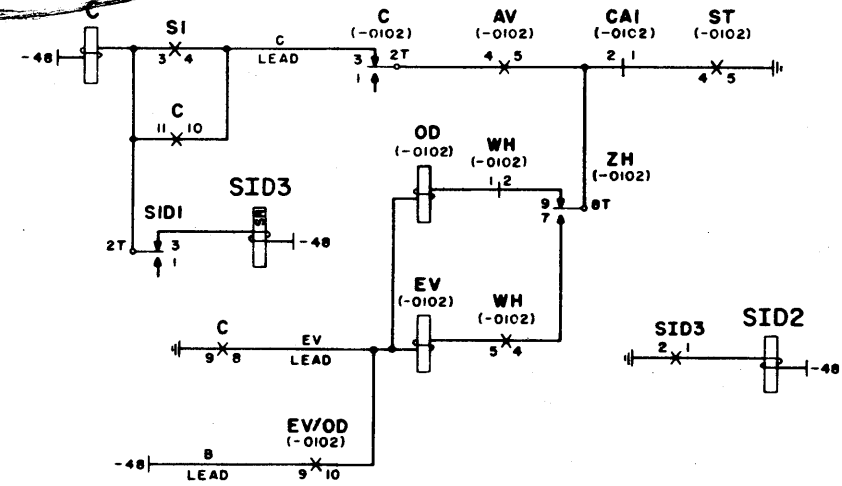
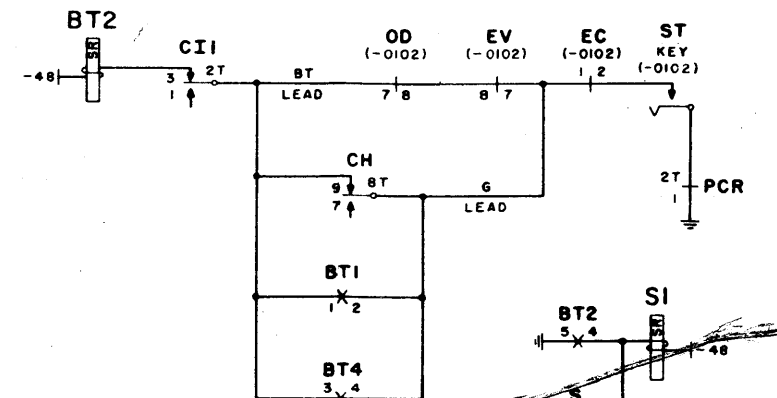
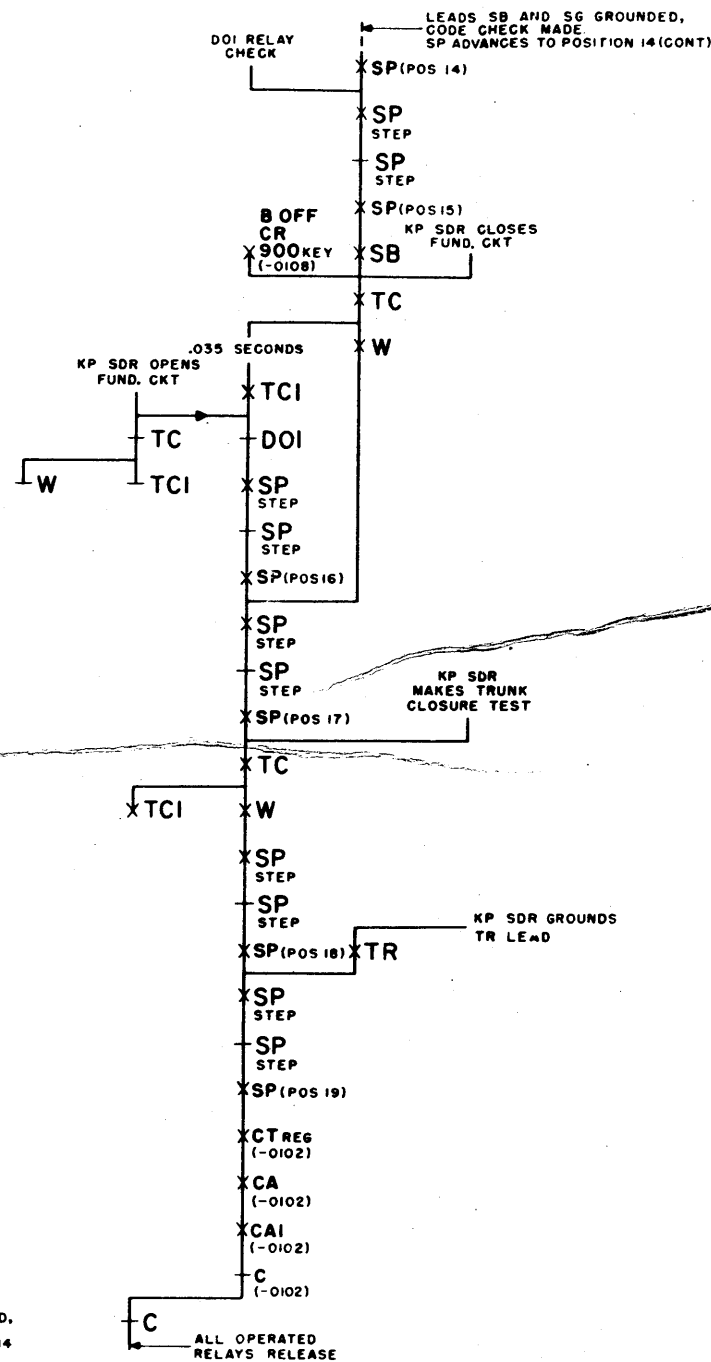


FIG. 91 - SEQUENCE CHART
SECTION -0129

LEADS SB AND SG GROUNDED, CODE CHECK MADE, SP ADVANCES TO POSITION 14 (CONT)



SEQUENCE CHART

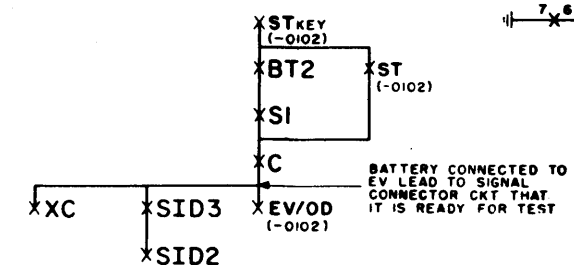


FIG. 92 - PRELIMINARY OPERATION AND SEIZURE
SECTION -0131-5,6

ES-558991

ISSUE
10

CD-25221-01

2

ES-558991
SHEET 29

BELL TELEPHONE LABORATORIES
INCORPORATED

6S

ES-558991



ES-558991



CD-25221-01

②

ES-558991

SHEET 31

BELL TELEPHONE LABORATORIES

65

ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

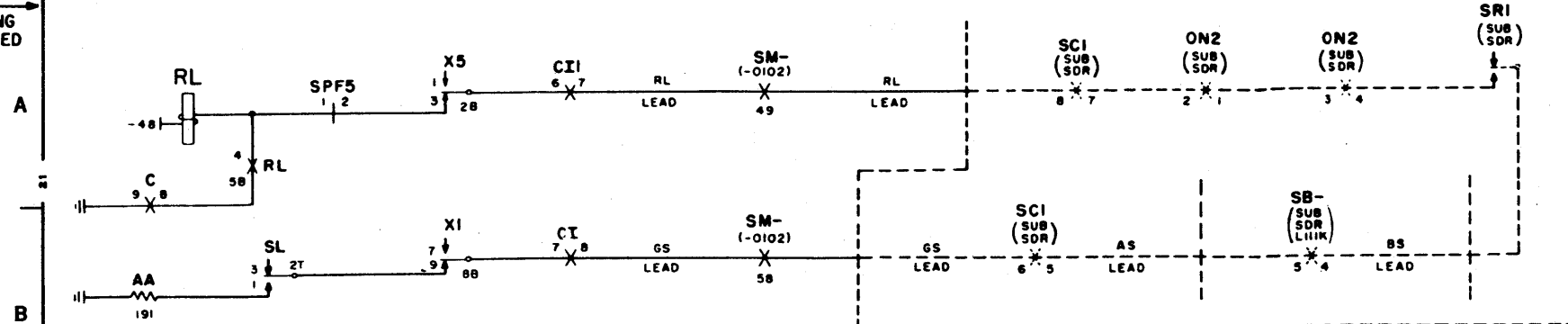


FIG. 96 - CHECK OF RELEASE SIGNAL
SECTION - 0131-11

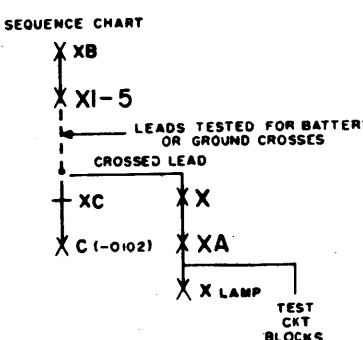
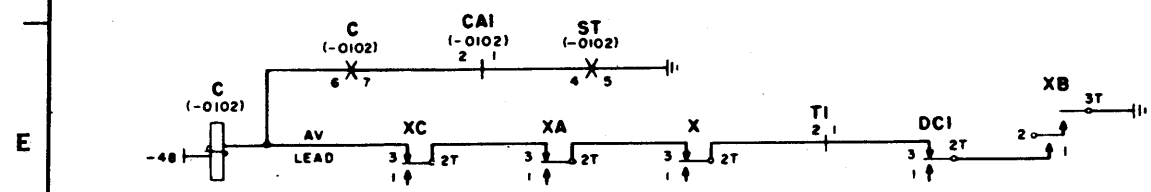
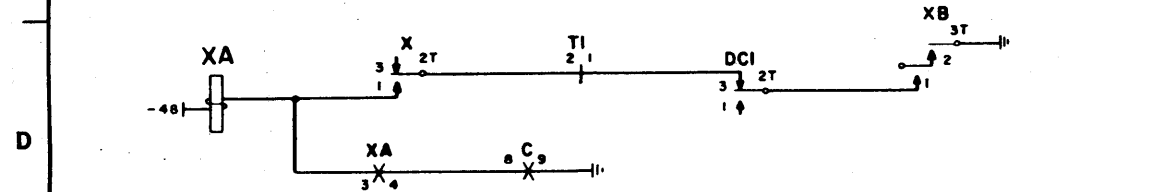
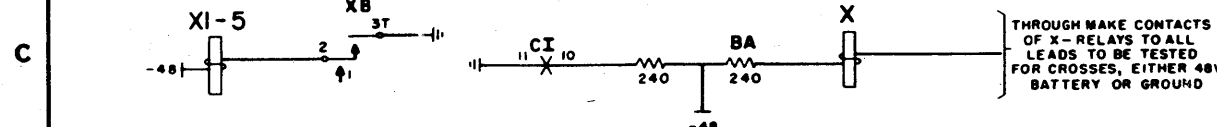
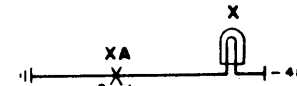
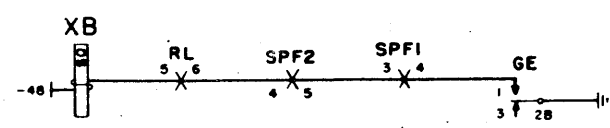
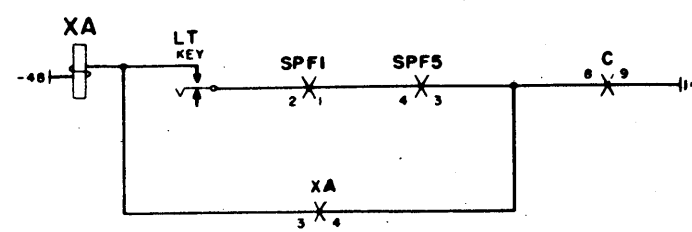
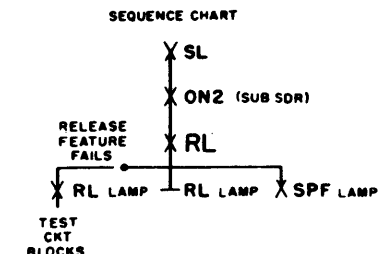


FIG. 98 - CHECK FOR CROSSES ON SC-
RELAY CONTACTS
SECTION - 0131-13

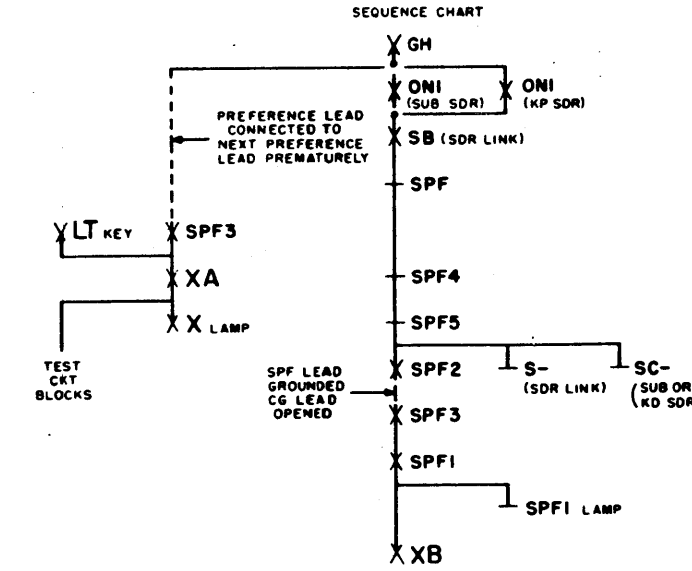


FIG. 97 - CHECK OF ADVANCE OF PREFERENCE LEAD
TO NEXT SENDER - PREMATURE CLOSURE
SECTION - 0131-12

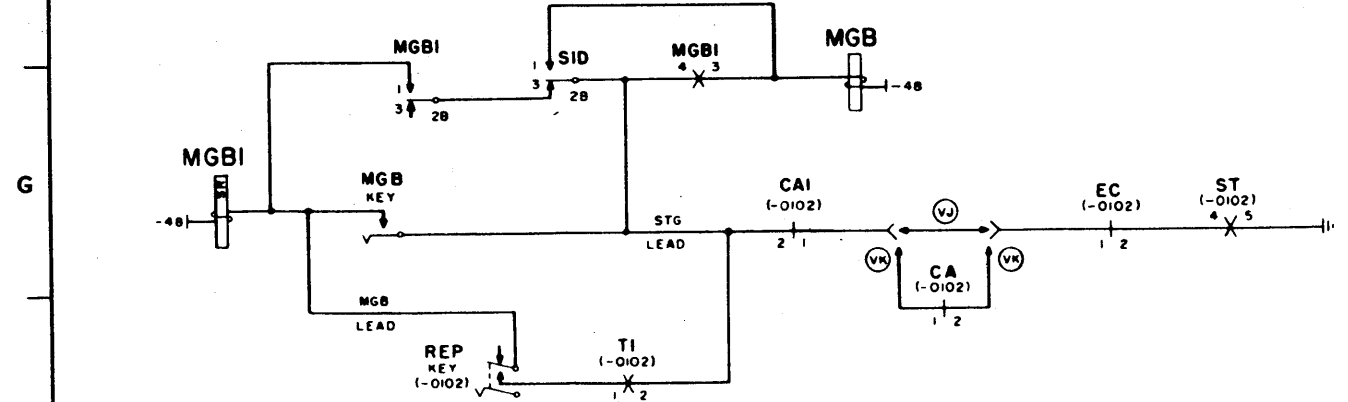
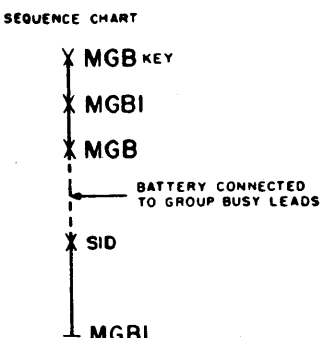


FIG. 99 - GROUP MAKE BUSY
SECTION - 0131-16



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FIG. 101 - REGISTRATION
SECTION - 0133-7

ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

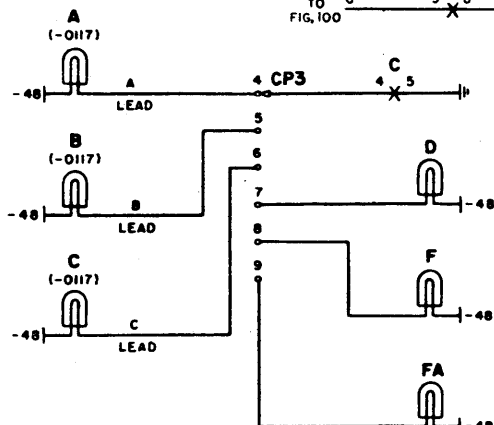
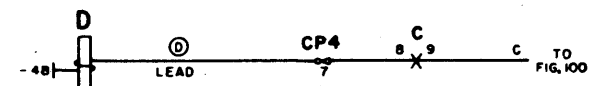
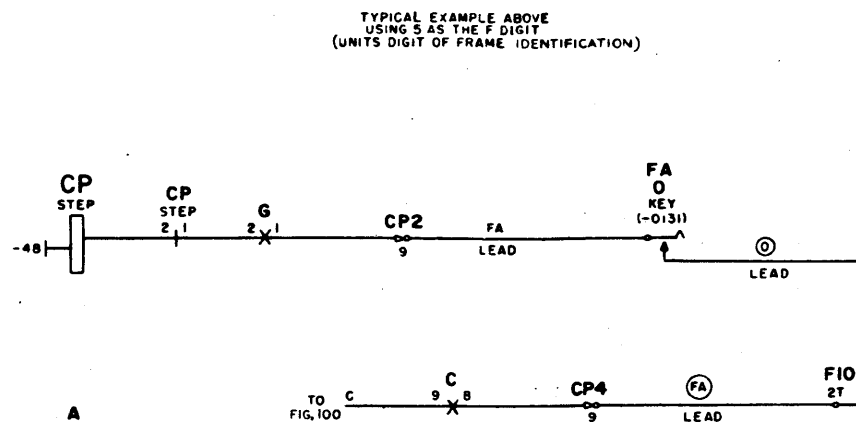
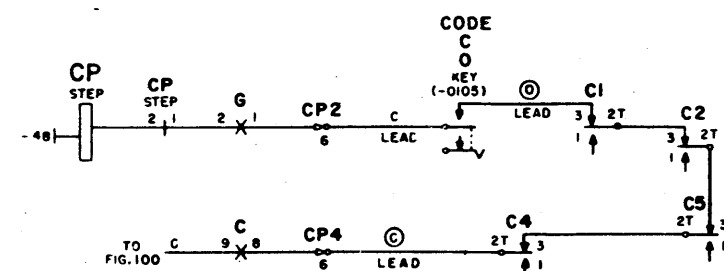
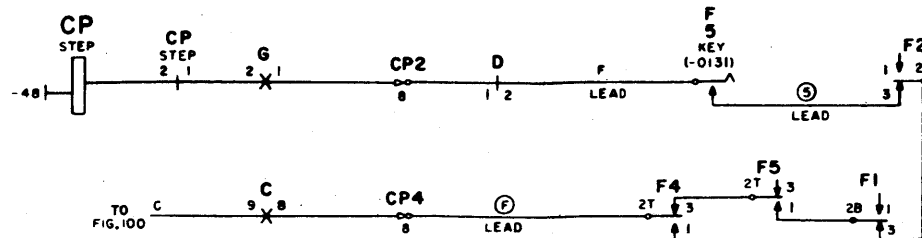
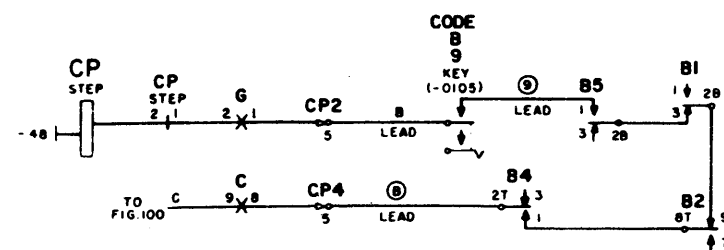


FIG. 103 - CHECKING THE OTHER DIGITS
SECTION - 0133-9

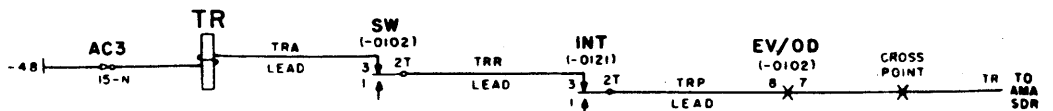
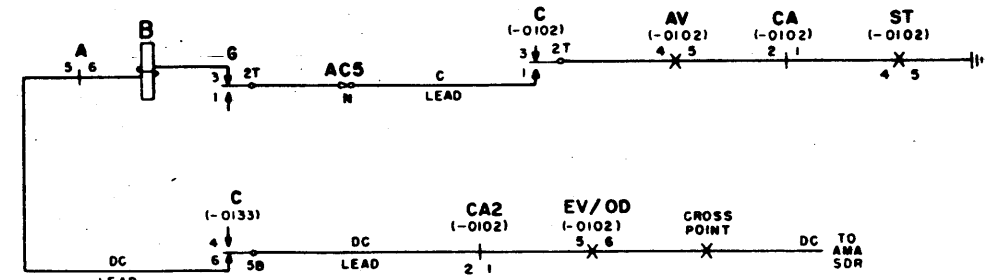


FIG. 105 - SEIZURE
SECTION - 0135-5

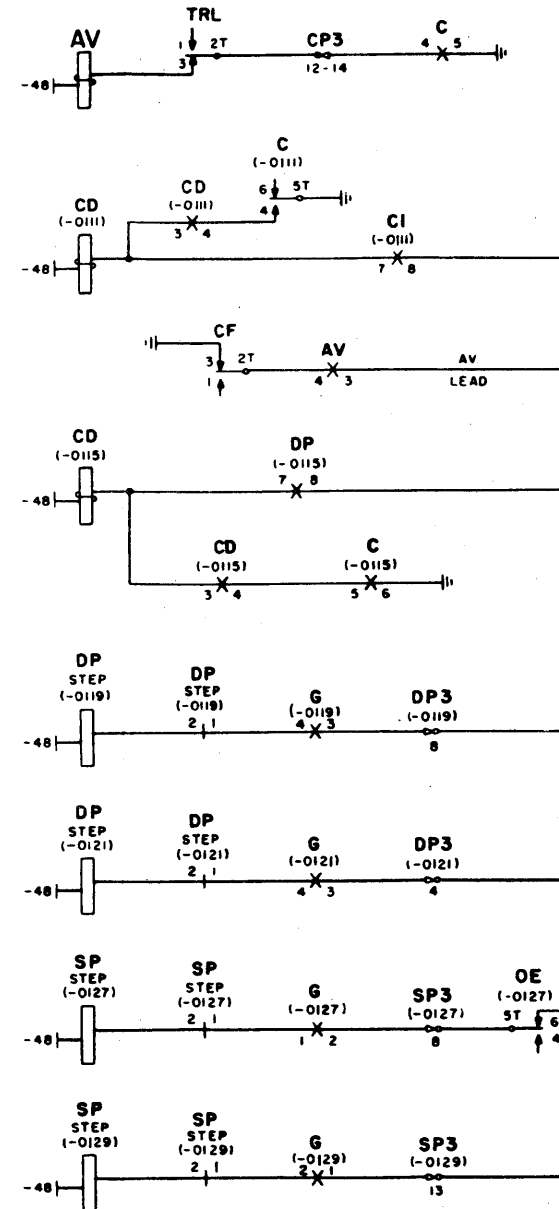


FIG. 104 - RELEASE
SECTION - 0133-10

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ALLOW 8 1/2 INCHES
FOR BINDING
WHEN REDUCED

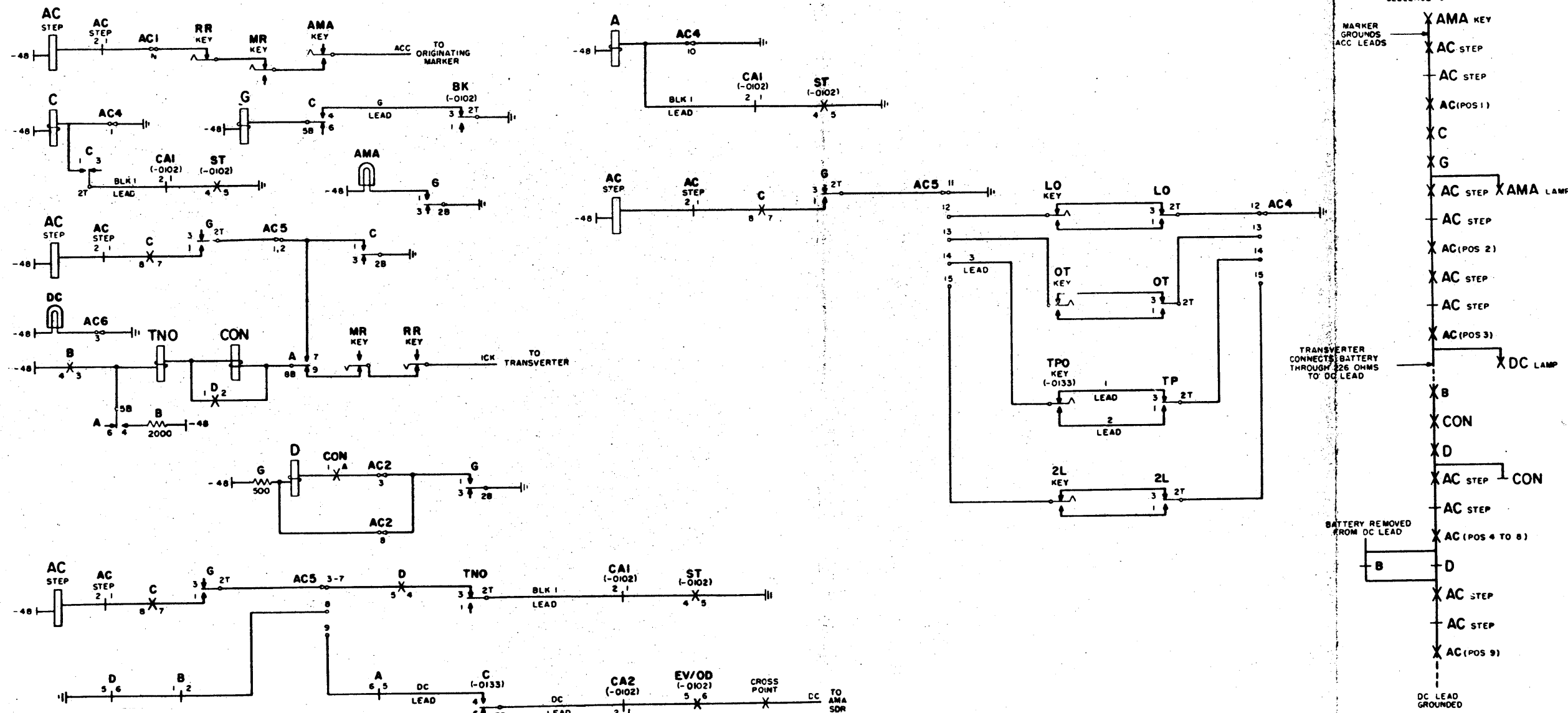


FIG. 106 - SEIZURE AND TEST
SECTION - 0135-6.1

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2

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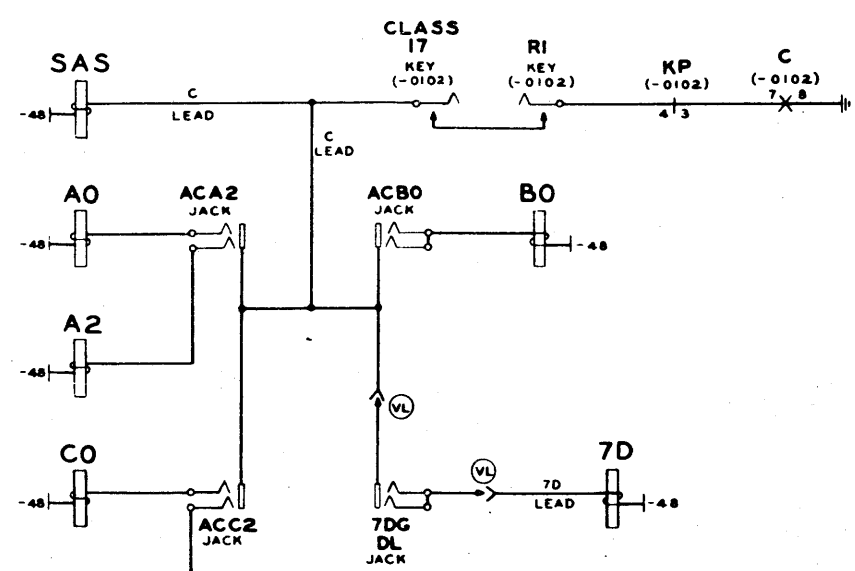
SHEET 35

BELL TELEPHONE LABORATORIES
INCORPORATED

6S

ISSUE
10

ALLOW 8 1/2 INCHES
FOR BINDING
WHEN REDUCED



TYPICAL EXAMPLE USING DIGITS
202 AS ACA, ACB & ACC DIGITS

FIG. 107 - SEIZURE
SECTION - 0137-5

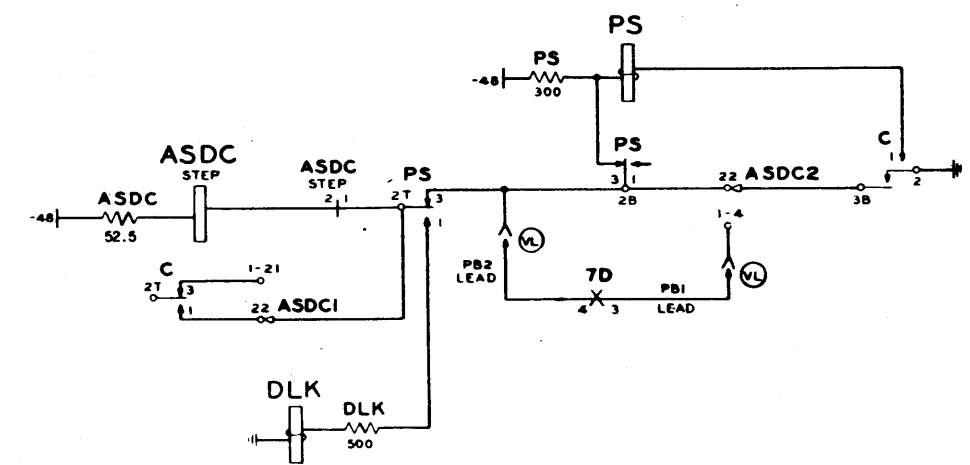
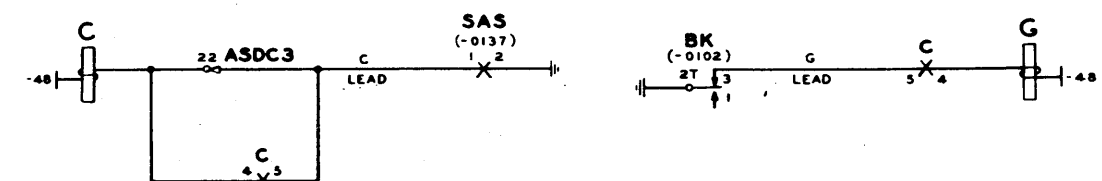
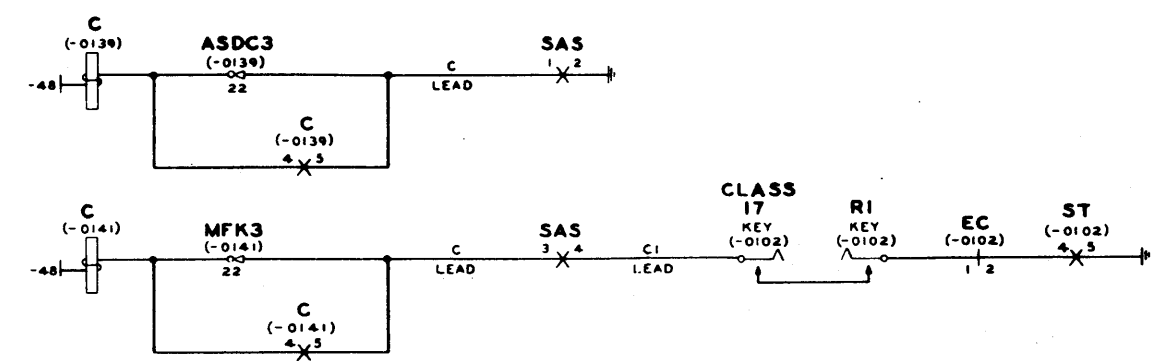


FIG. 109 - SEIZURE AND PREPARATION FOR DIALING
SECTION - 0139-5,6



10 DIGIT "SKIP 3" CALL

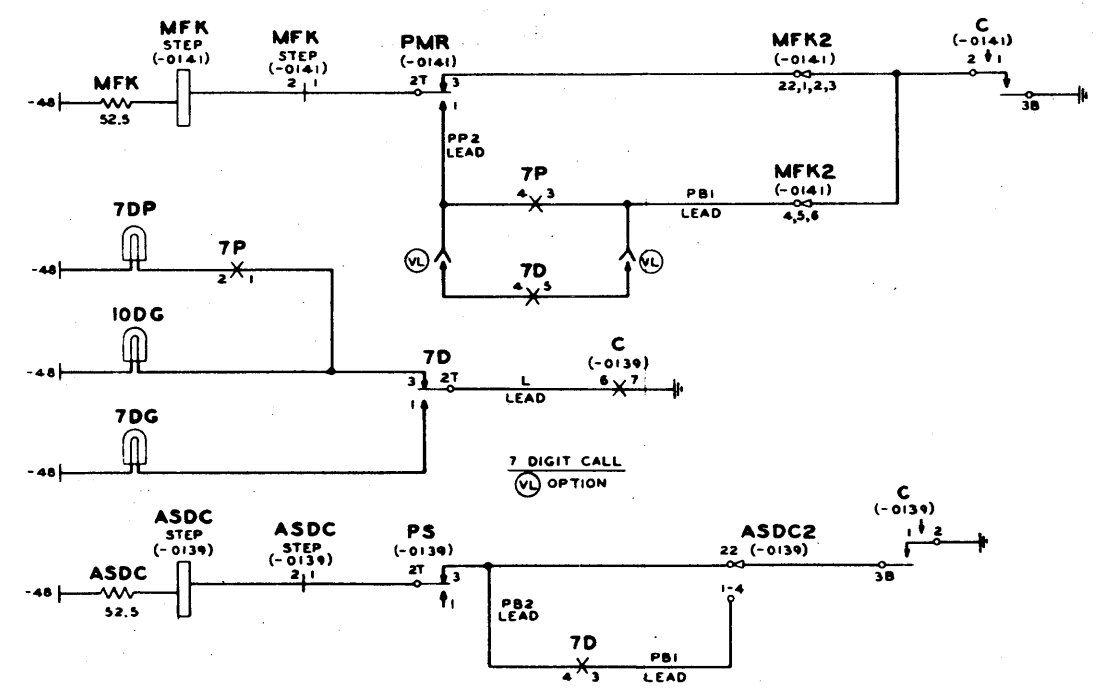


FIG. 108 - PREPARATION FOR DIALING AND PULSING
SECTION - 0137-6

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ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

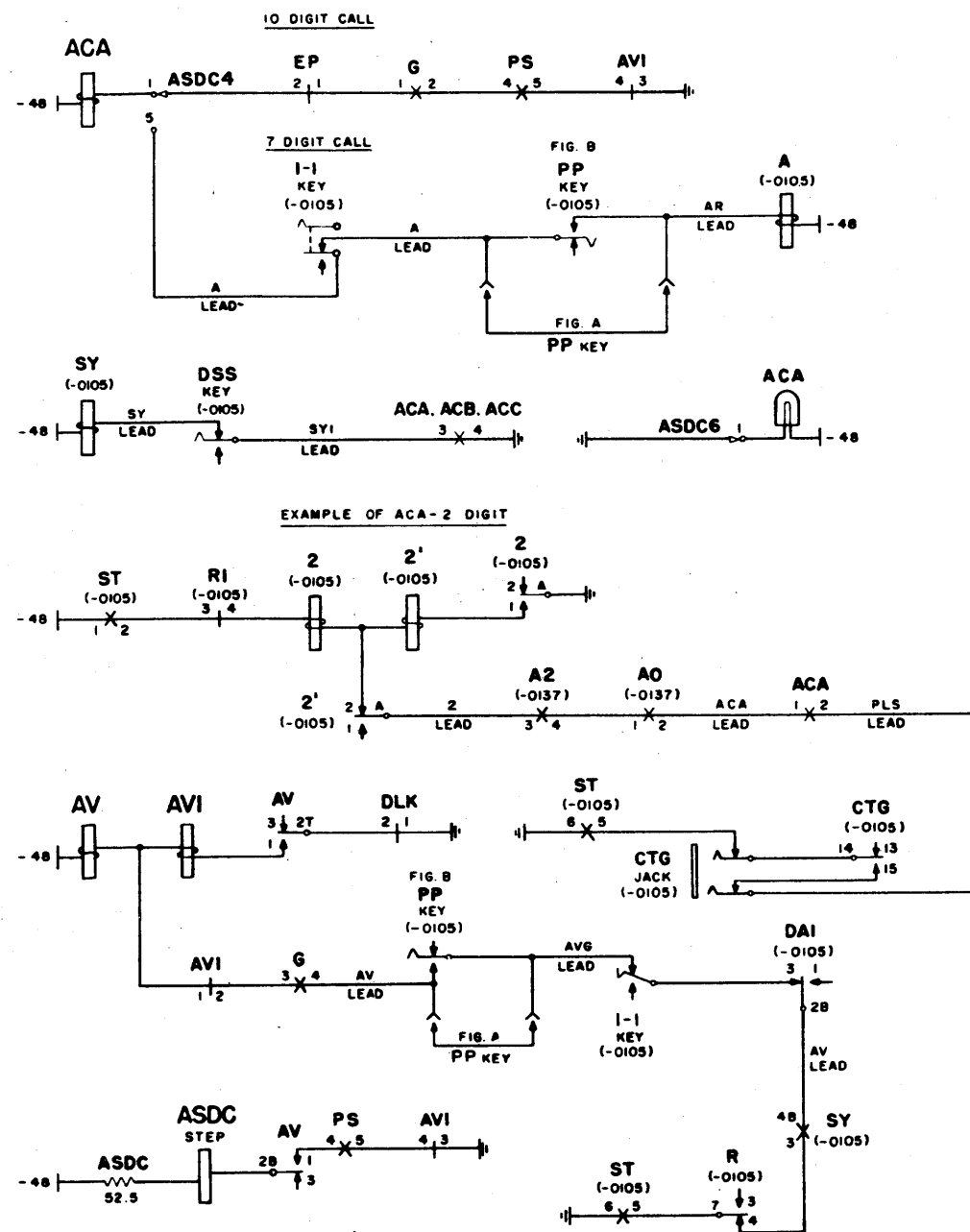


FIG. 110 - DIALING THE ACA OR A DIGIT
SECTION -0139-7

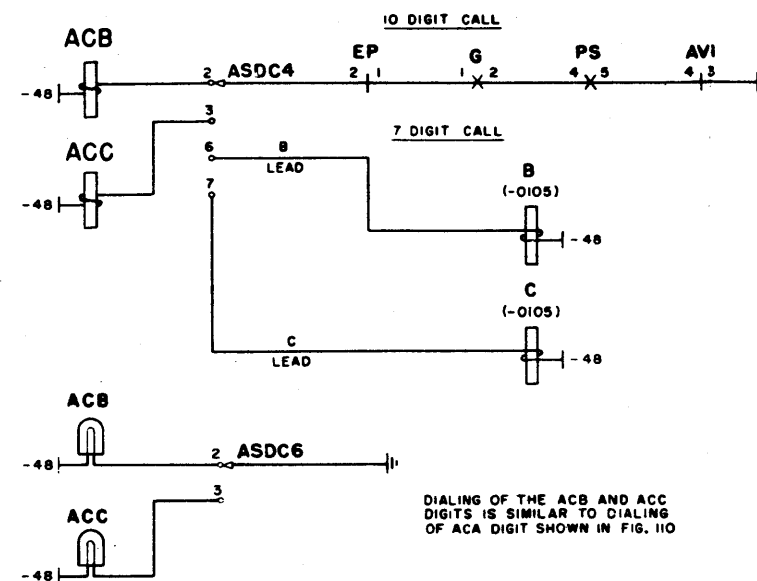


FIG. 111 - DIALING OF THE ACB AND ACC OR B AND C DIGITS
SECTION -0139-8

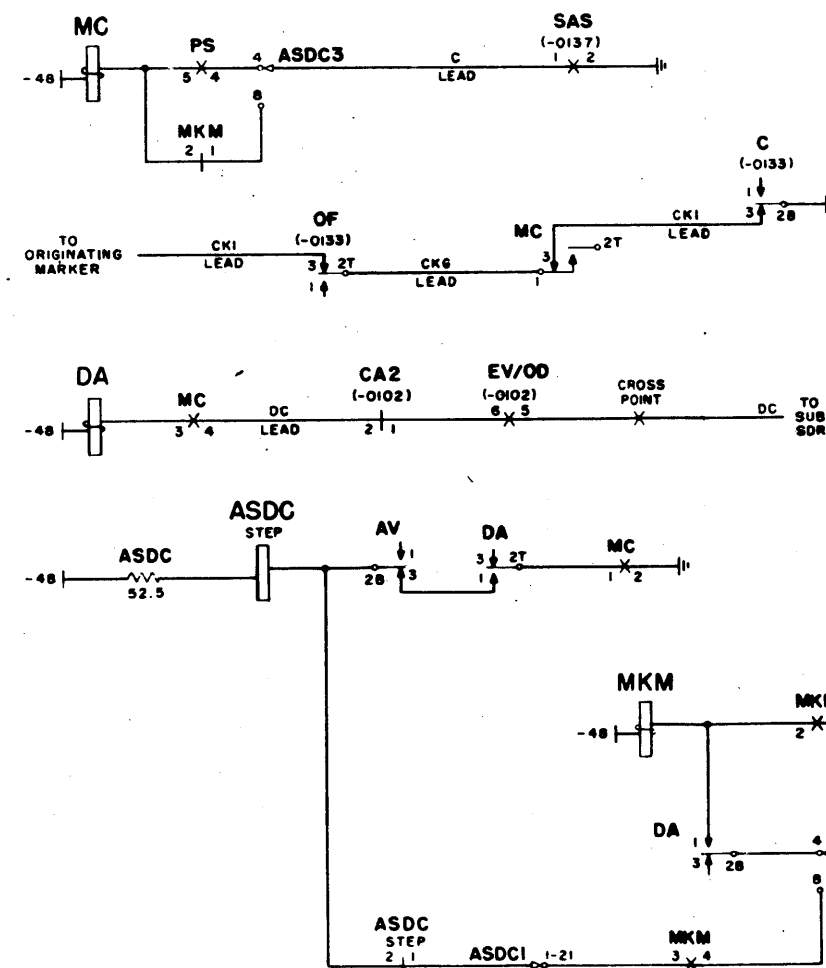


FIG. 112 - MARKER TRANSLATION
SECTION -0139-9

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CD-25221-01

BELL TELEPHONE LABORATORIES
INCORPORATED

2

6S

ES-558991
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ISSUE
10

ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

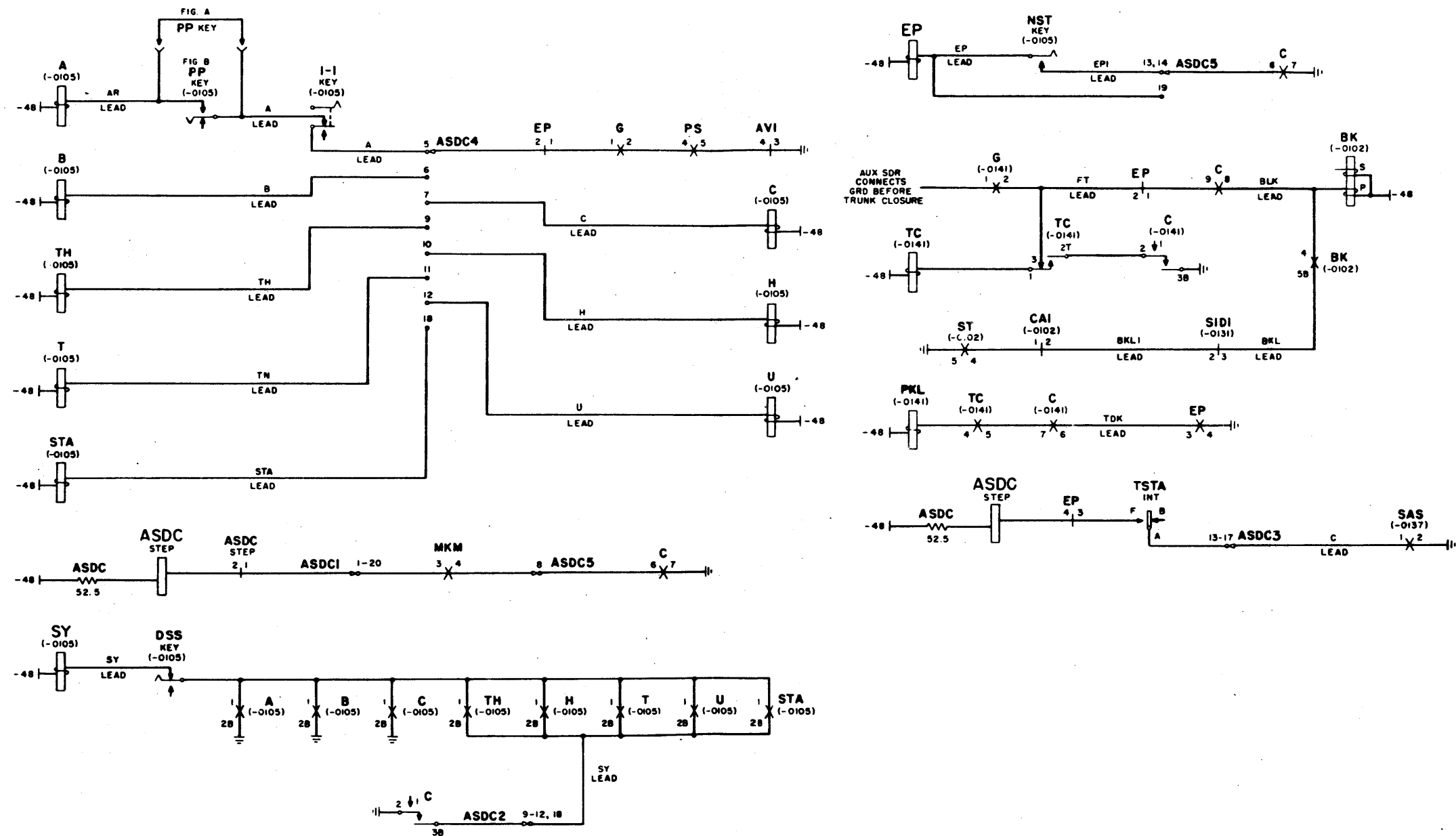


FIG. 113 - DIALING THE OTHER DIGITS
SECTION 0139-10

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CD-25221-01

BELL TELEPHONE LABORATORIES
INCORPORATED

ES-558991

SHEET 38

ISSUE
10

ALLOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

A
B
C
D
E
F
G
H

A
B
C
D
E
F
G
H

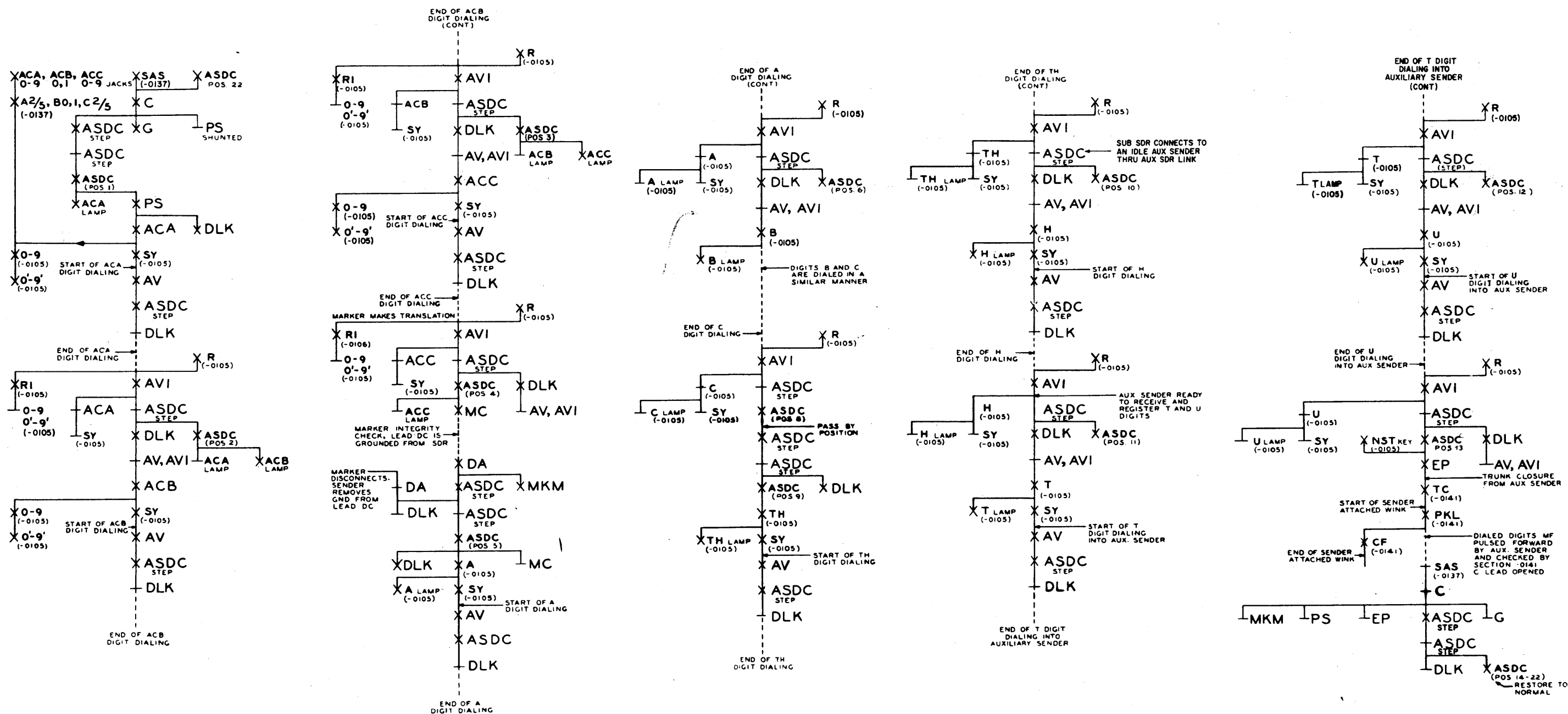


FIG. 114 - SEQUENCE CHART - 10 DIGIT CALL
SECTION - 0139

ES-558991

**ALLOW $8\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED**

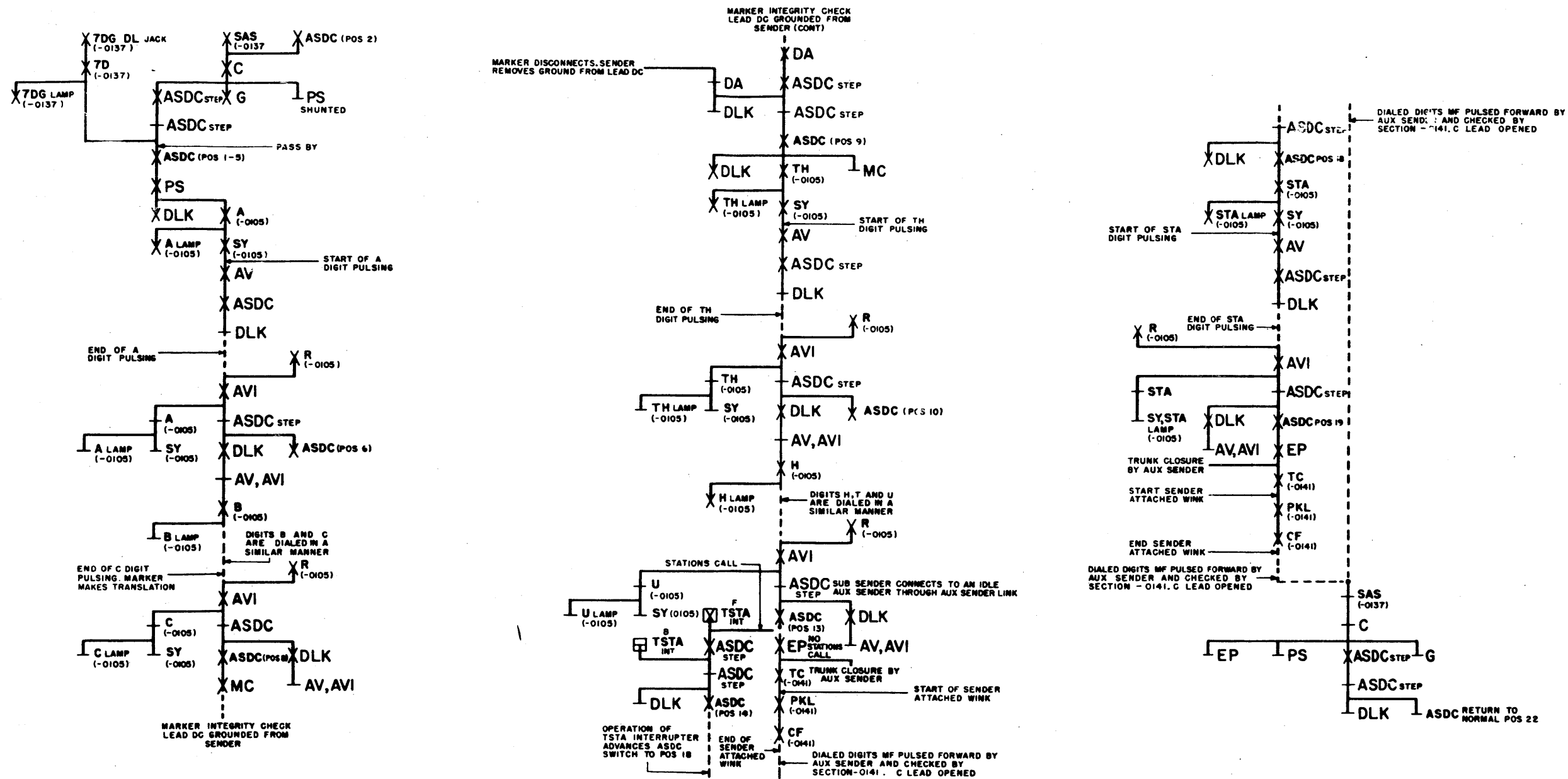


FIG. 115 - SEQUENCE CHART - 7 DIGIT CALL
SECTION - 0139

ES-55891

W 8 1/2 INCHES
OR BINDING
N REDUCED

A

B

C

D

E

F

G

H

A

B

C

D

E

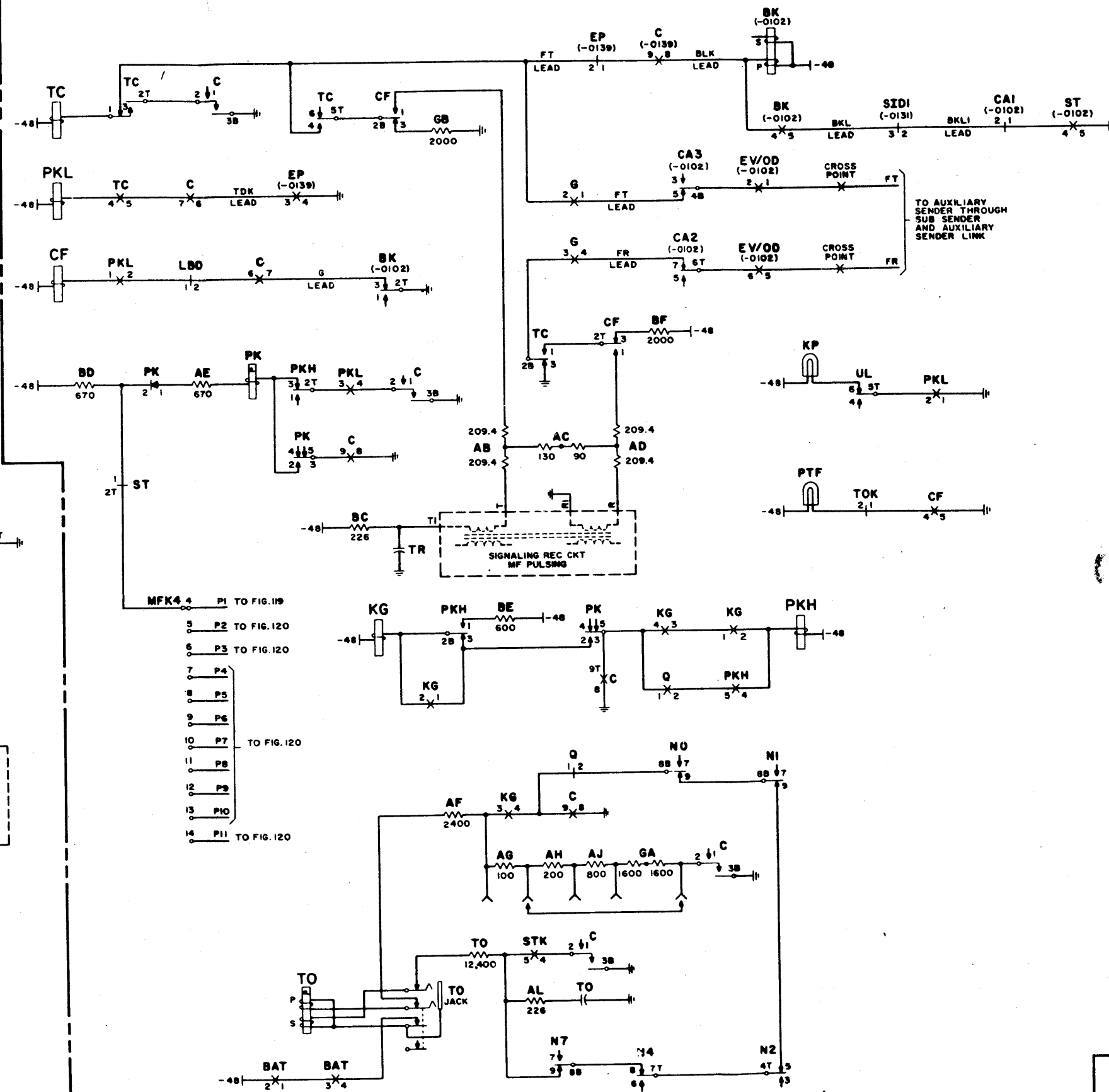
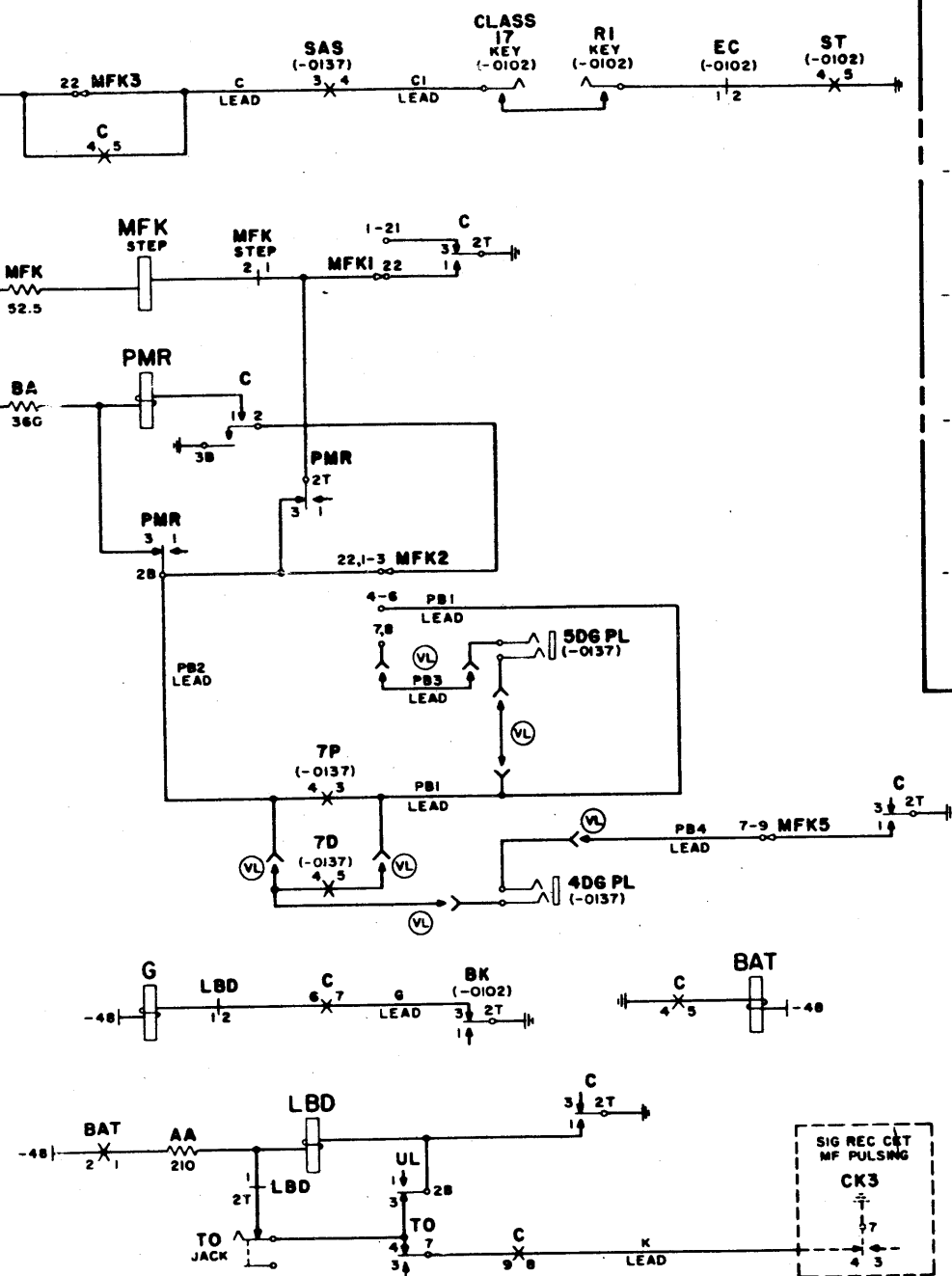
F

G

H

10

H



ES-558991

FIG. 117 - TRUNK TEST SECTION-0141-7

CD-25221-01

BELL TELEPHONE LABORATORIES
INCORPORATED

ES-558991

SHEET 41

8 1/2 INCHES
BINDER
IN REDUCED

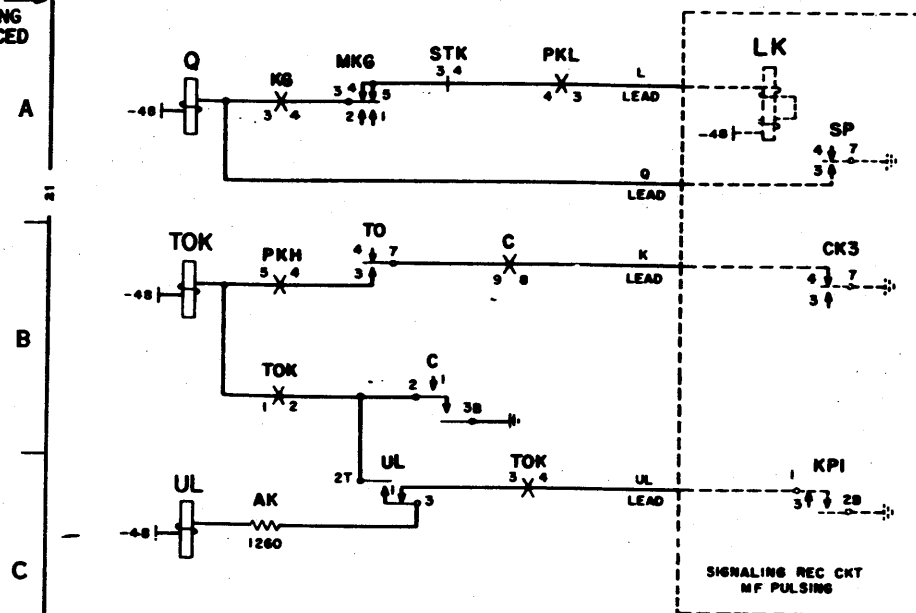


FIG. 118 - CHECKING THE KP SIGNAL SECTION - 0141-8

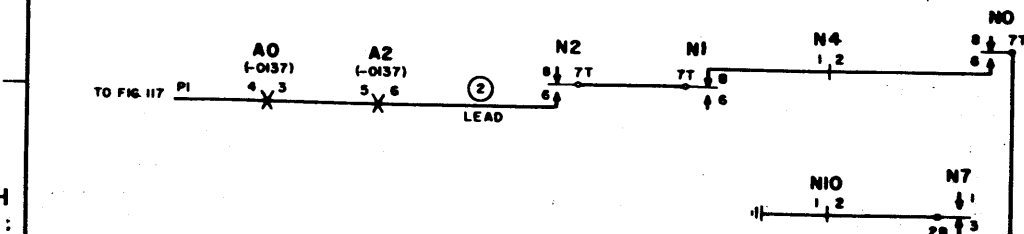
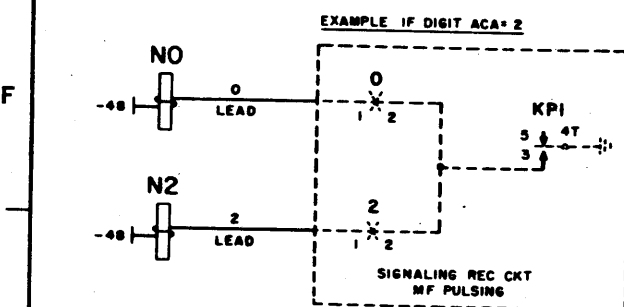
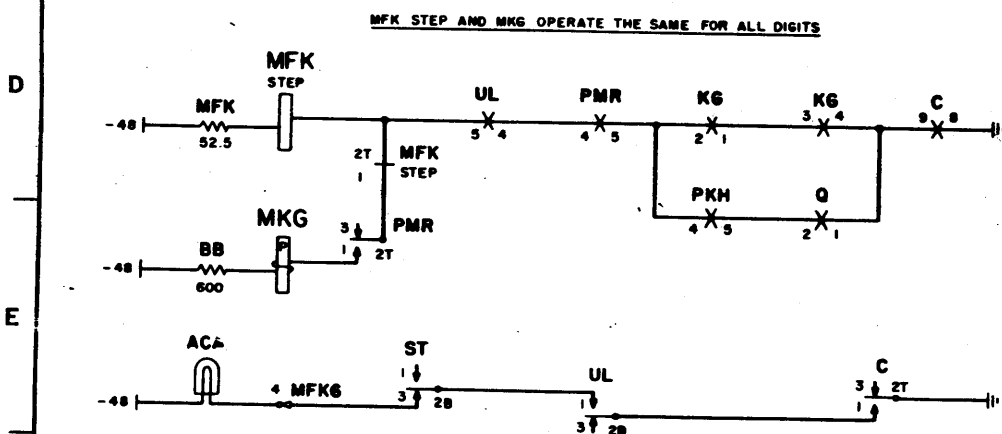


FIG. 119 - CHECKING THE FIRST NUMERICAL DIGIT SECTION - 0141-9

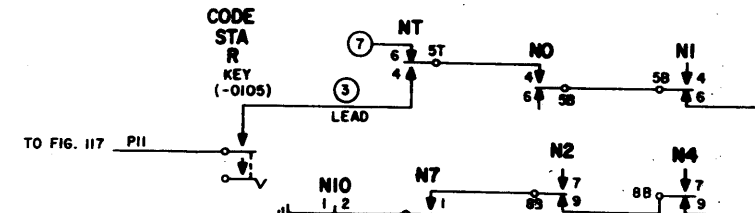
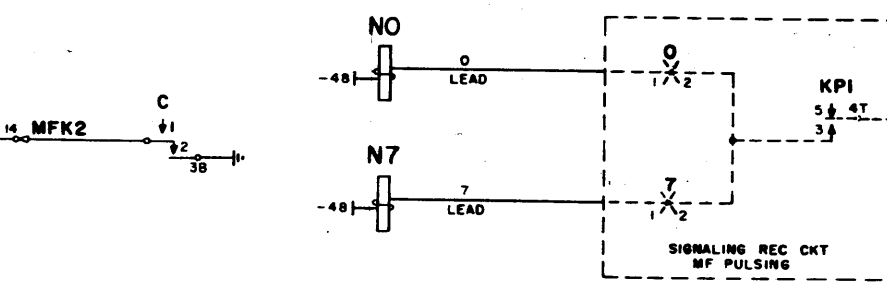
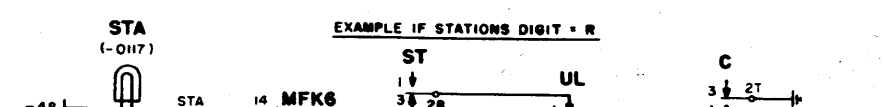
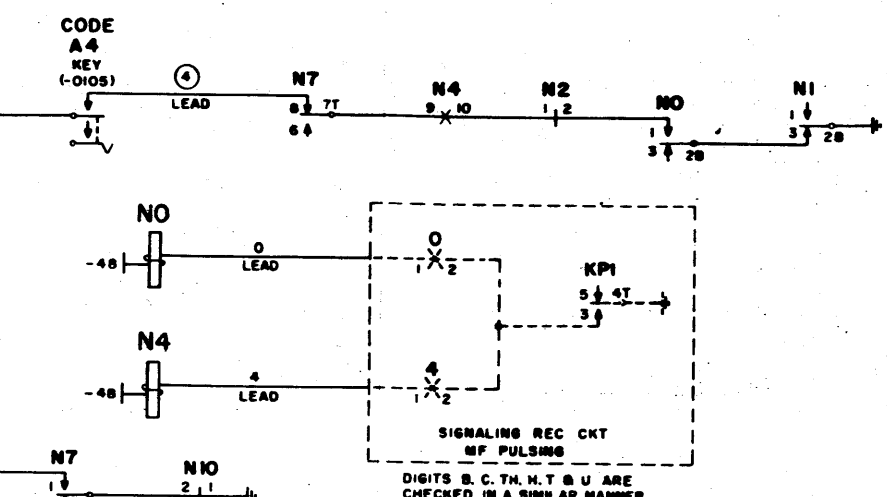
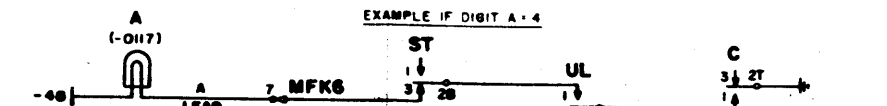
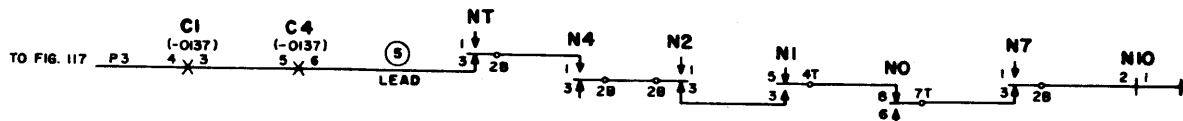
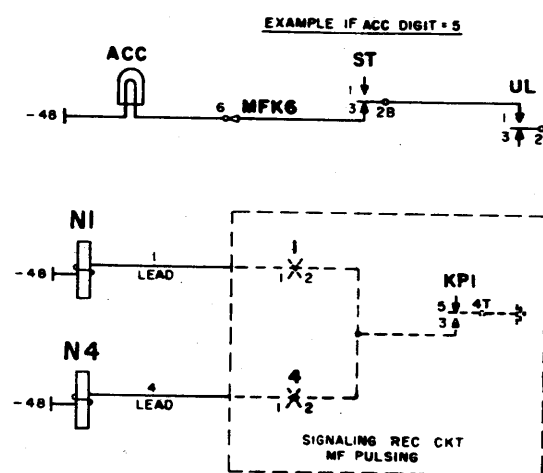
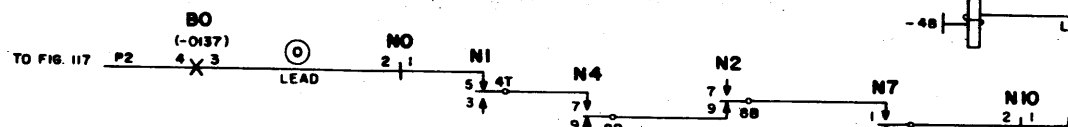
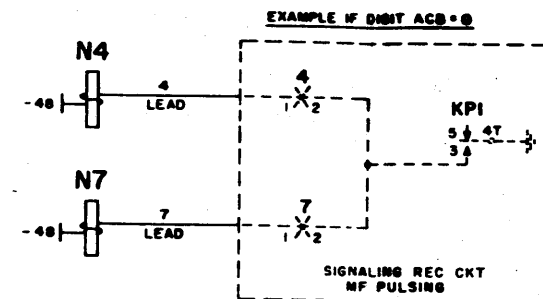
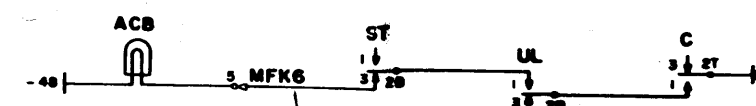


FIG. 120 - CHECKING THE OTHER NUMERICAL DIGITS SECTION - 0141-10

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8 1/2 INCHES
8
BINDING
REDUCED

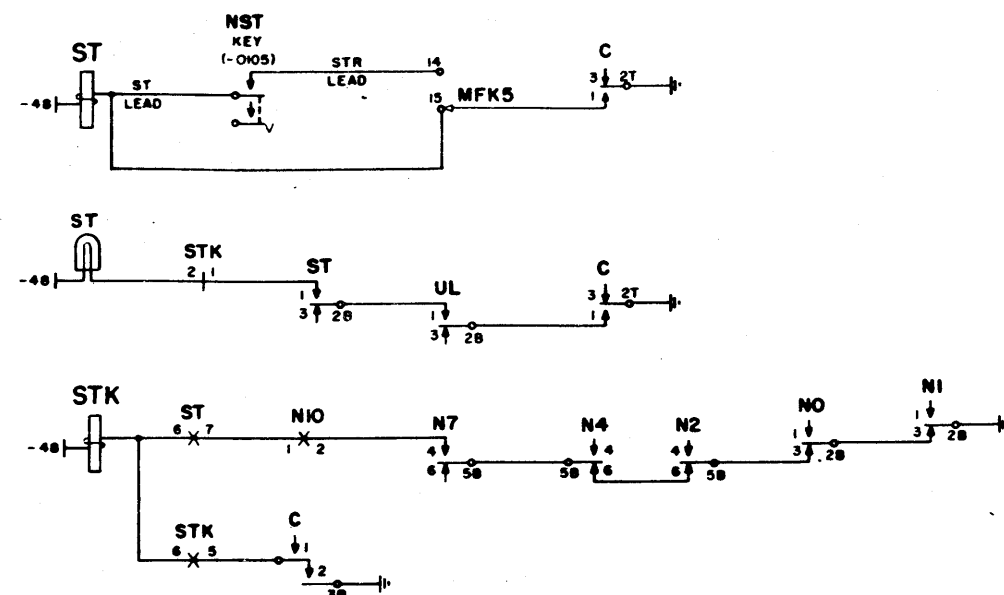


FIG. 121 - CHECKING THE START PULSE
SECTION - 0141-11,12

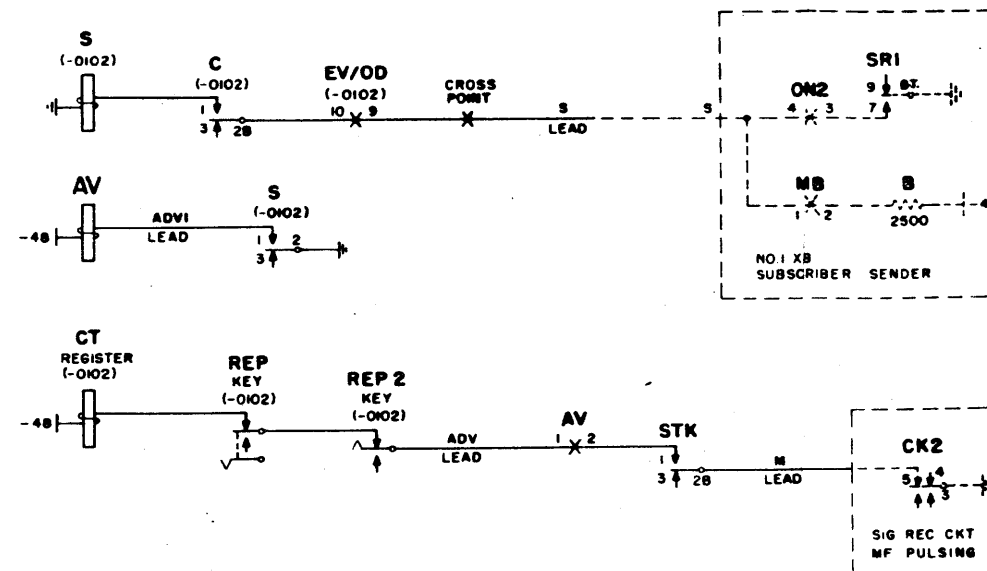
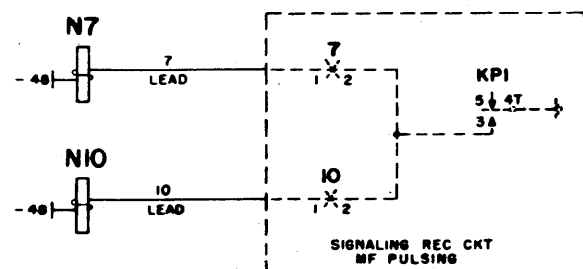


FIG. 122 - RELEASE
SECTION - 0141-13

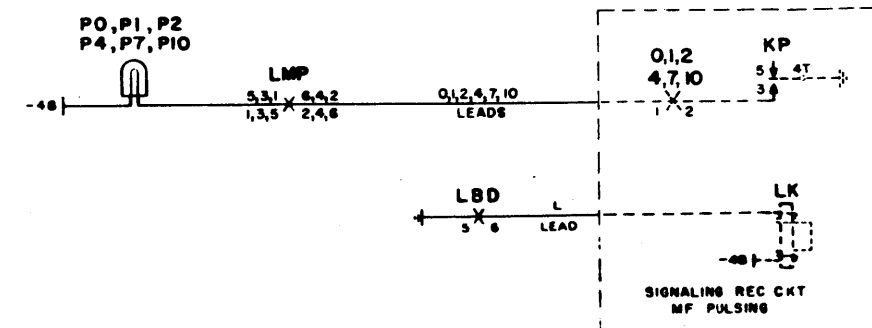
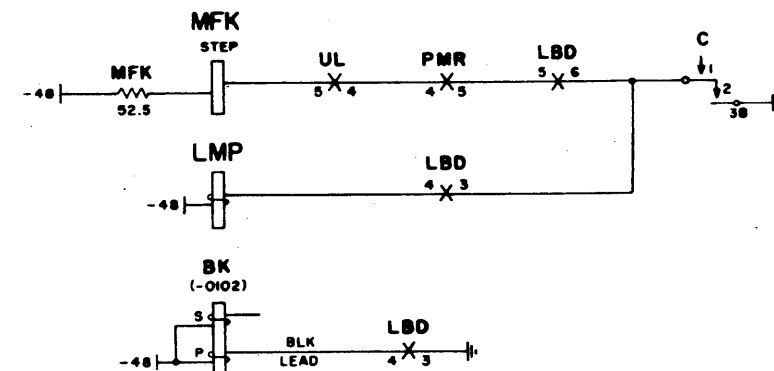


FIG. 123 - TIME ALARM AND BLOCKING
SECTION - 0141-15

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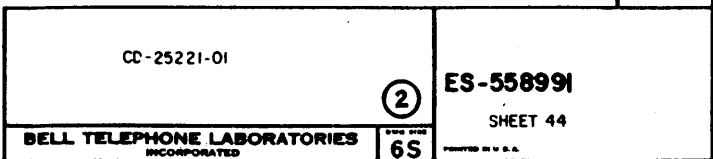
2

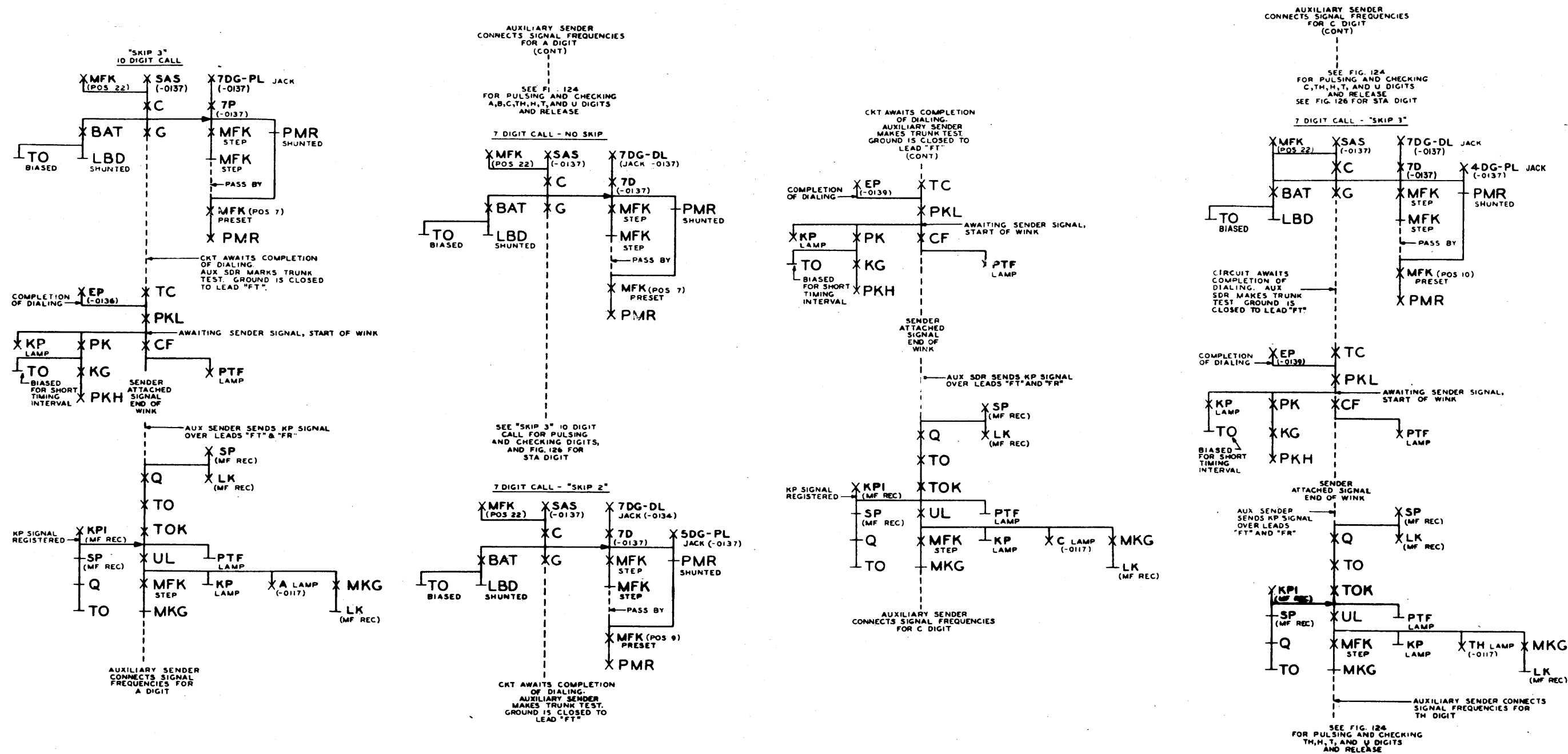
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8 1/2 INCHES
R BINDING
N REDUCED

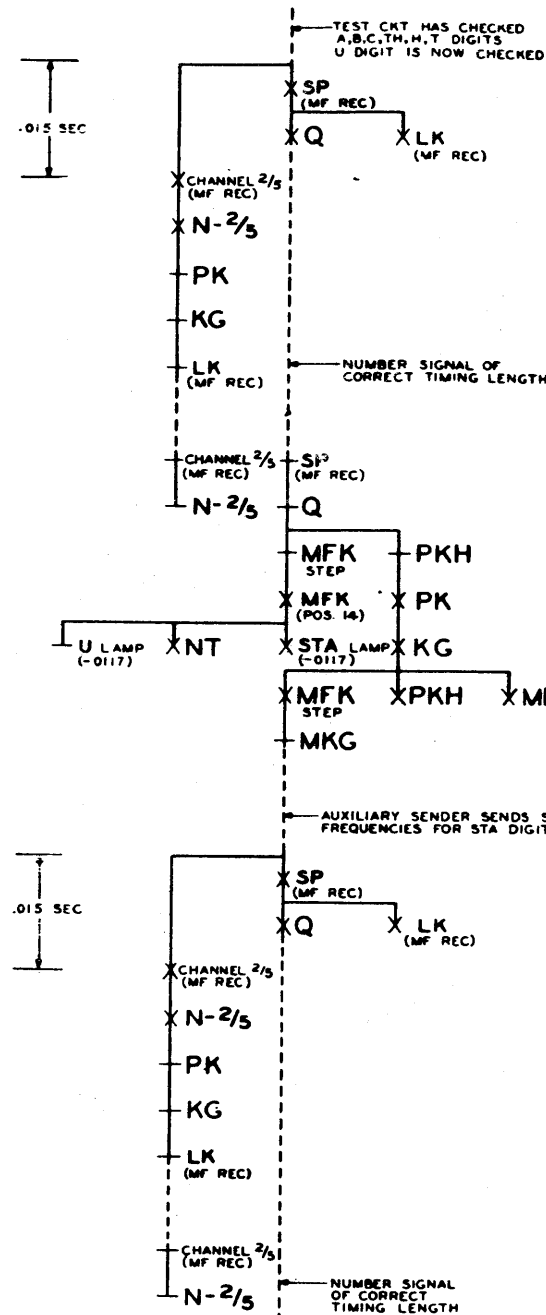


FIG. 126
7 DIGIT CALL - SEQUENCE CHART - STATIONS DIGIT
SECTION - 0141

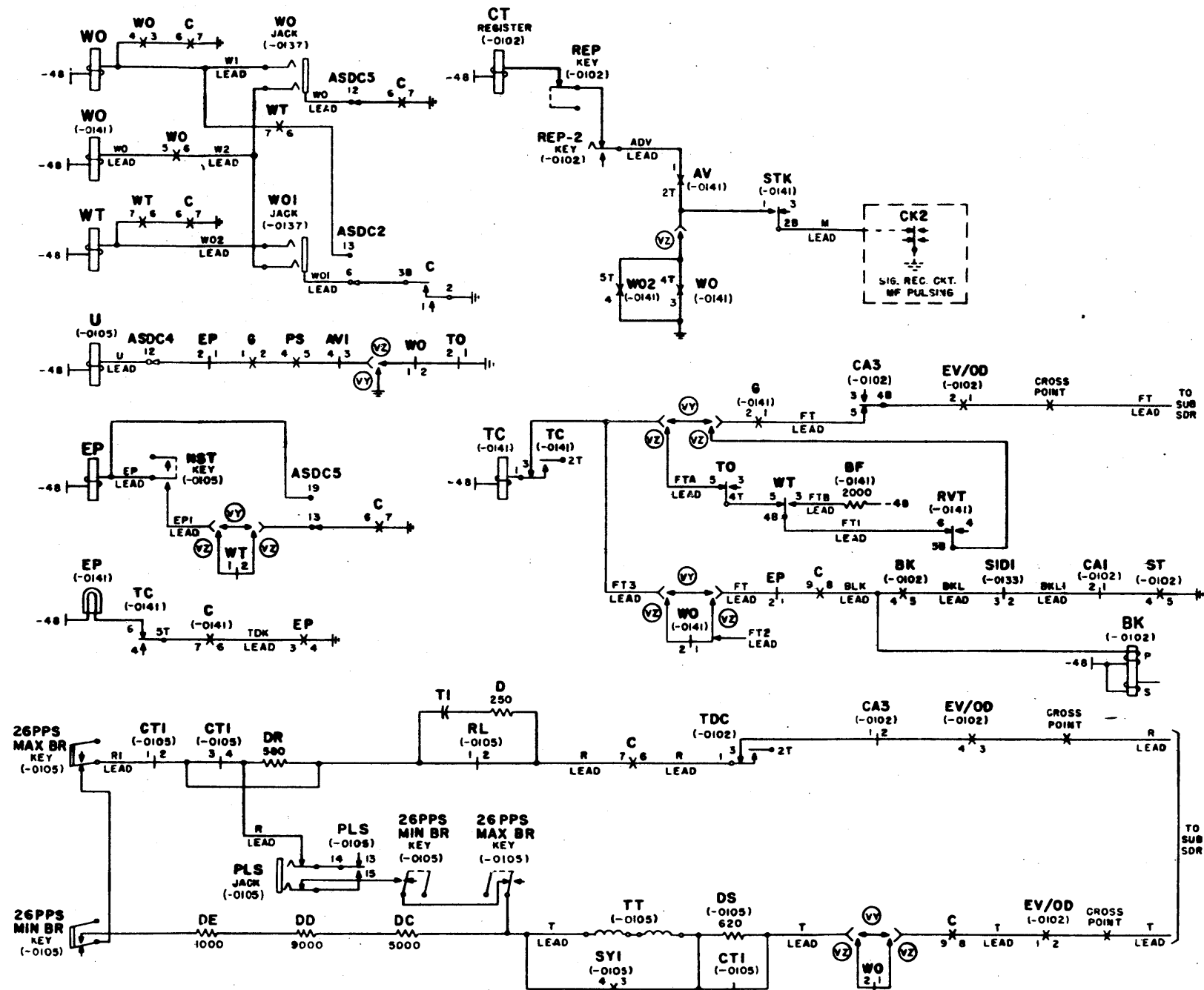
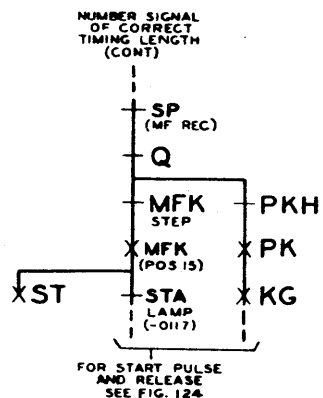


FIG. 127 - WIPEROUT AND DISCONNECT BEFORE AND
AFTER DIALING IS COMPLETED
SECTION - 0139 - 14, 15

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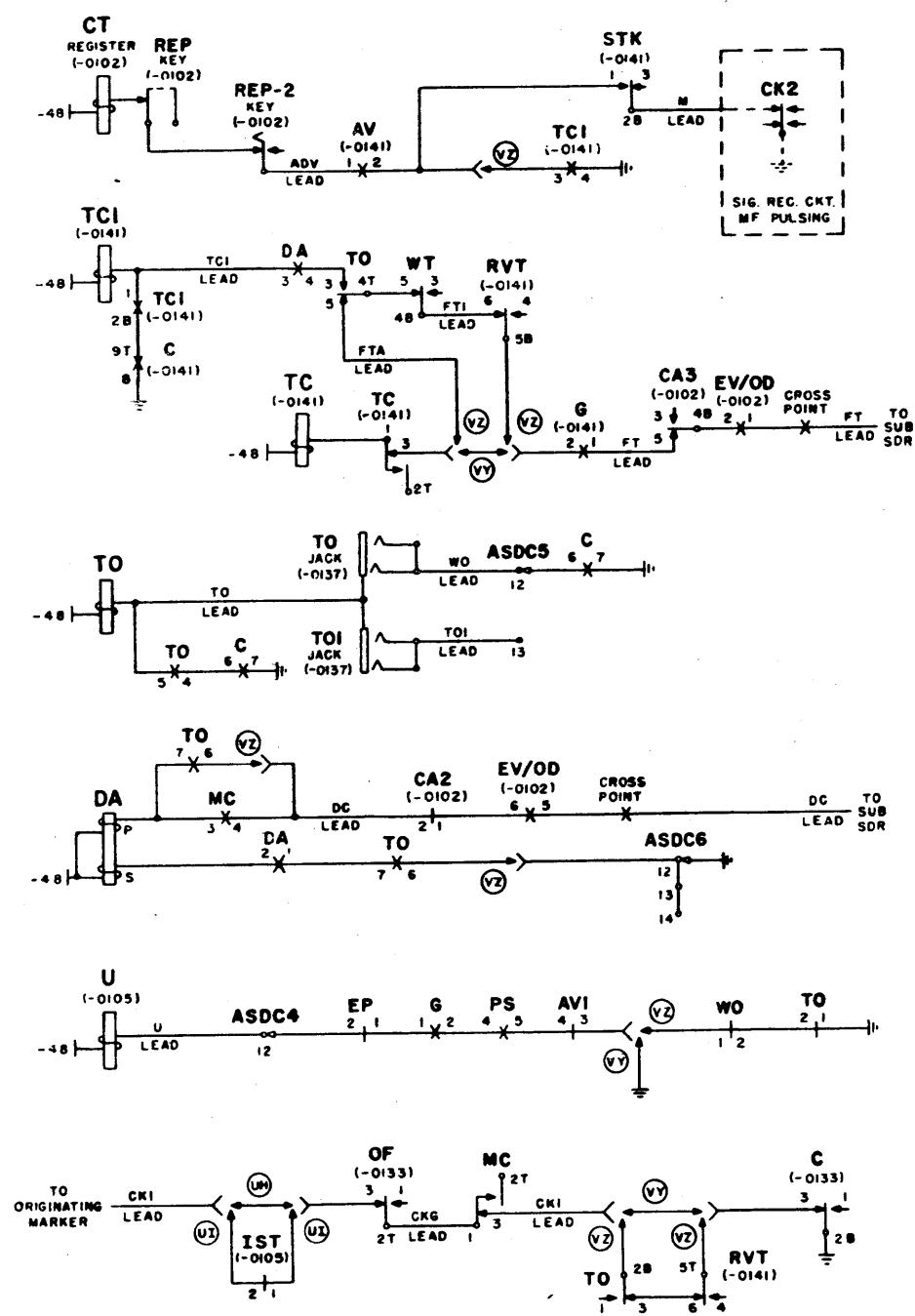


FIG.12B - TIMEOUT AND DISCONNECT BEFORE AND AFTER
DIALING IS COMPLETED
SECTION - 0139-17,18

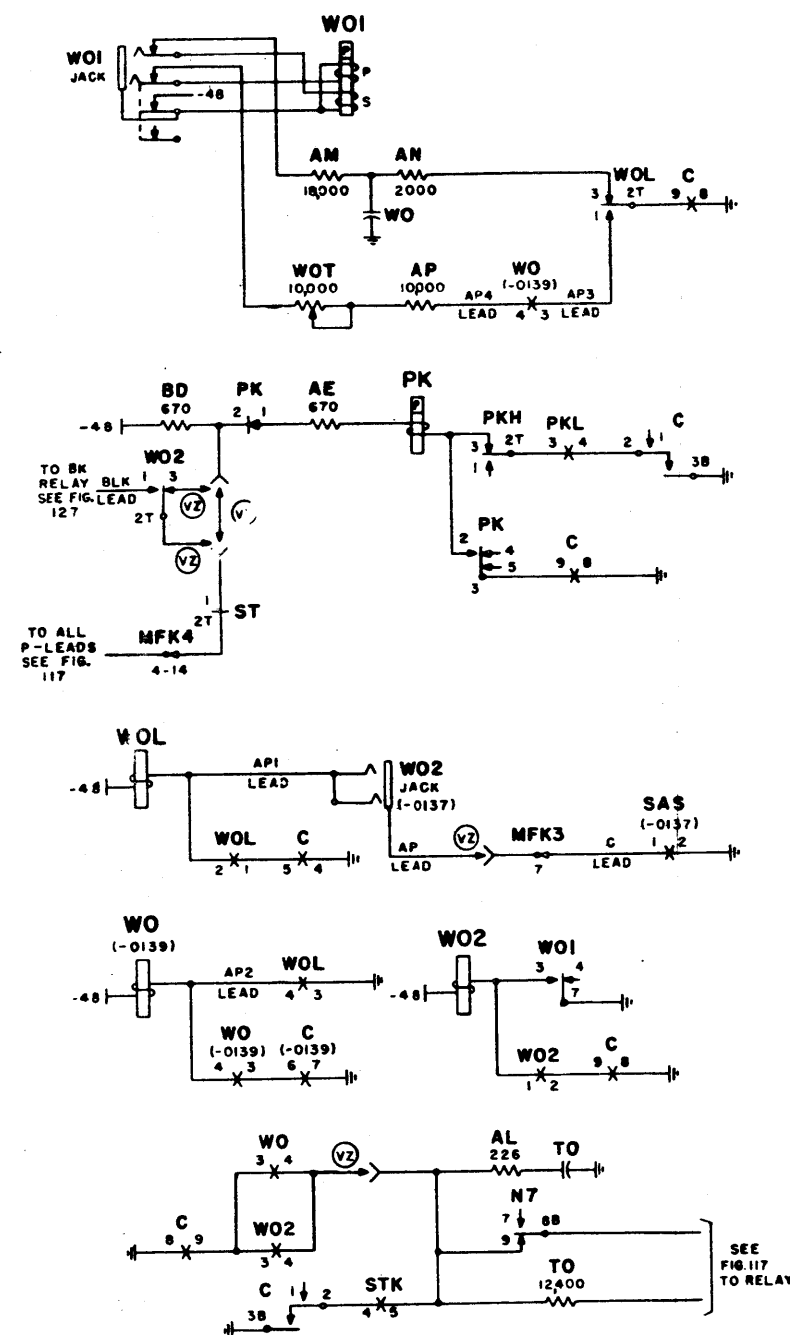


FIG.129 - WIPEOUT AND DISCONNECT BEFORE
MF PULSING IS COMPLETED
SECTION - 0141-17

W 8 3/8 INCHES
OR BINDING
EN REDUCED

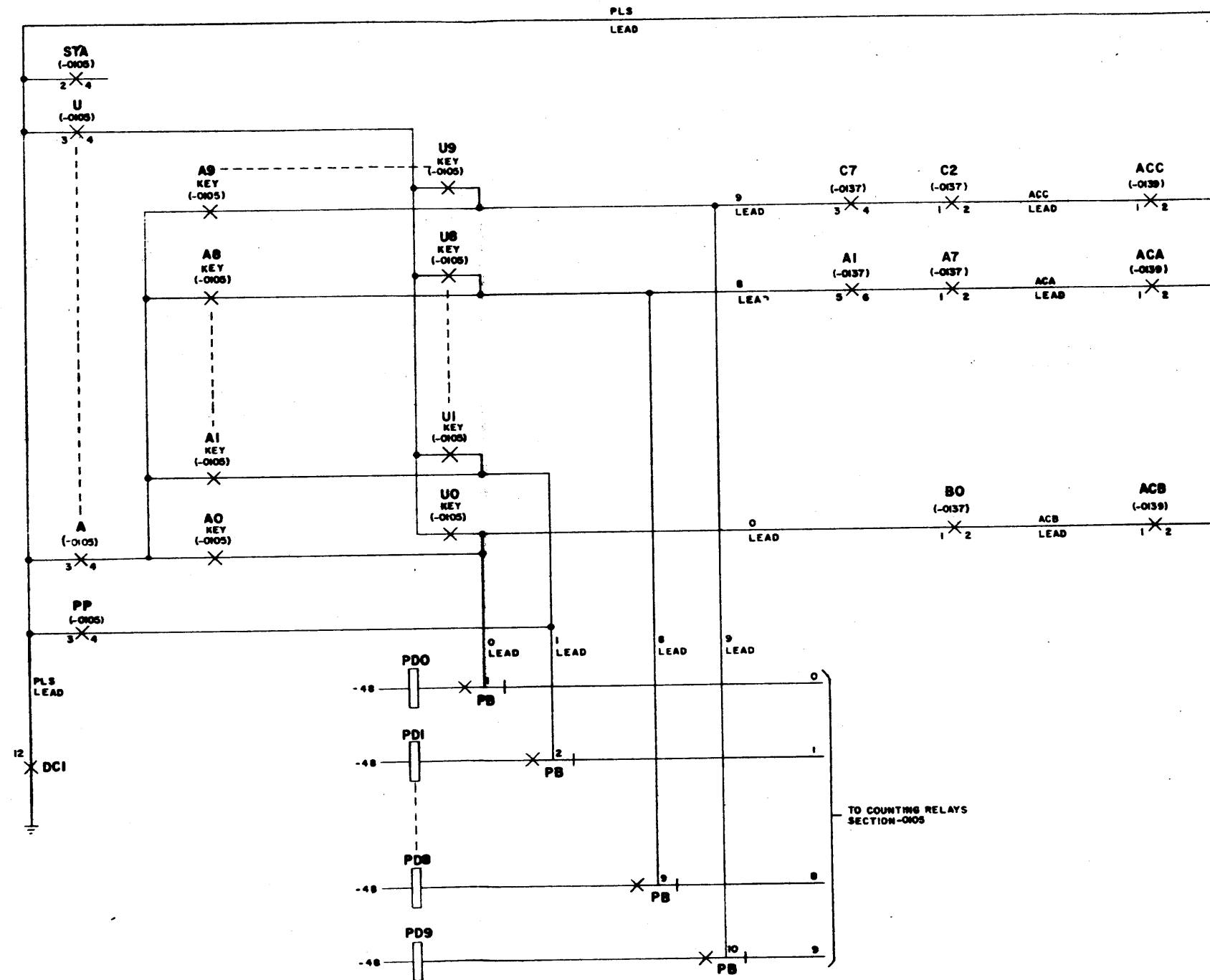
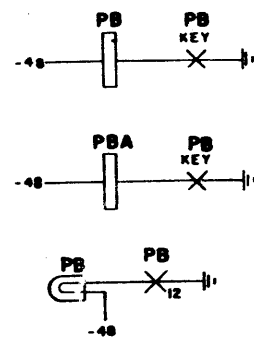


FIG. 130 "TOUCH-TONE" DIGIT CONTROL. CKT
SECTION -0143-6, 10

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OW 8 1/2 INCHES
FOR BINDING
WHEN REDUCED

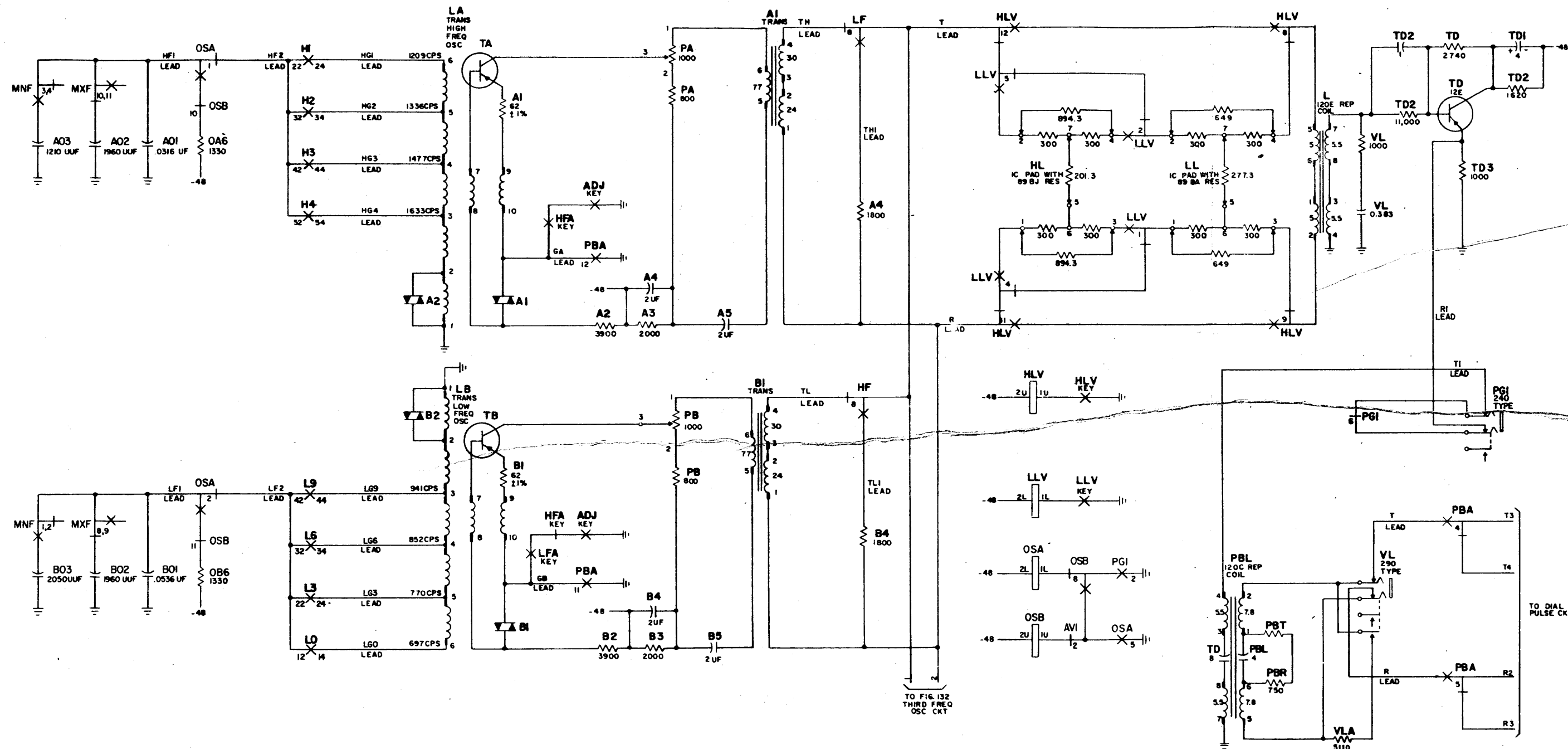


FIG. 131-"TOUCH-TONE" HIGH AND LOW FREQUENCY
OSCILLATOR CIRCUITS
SECTION-0143-7

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1 8 3 INCHES
R BINDING
N REDUCED

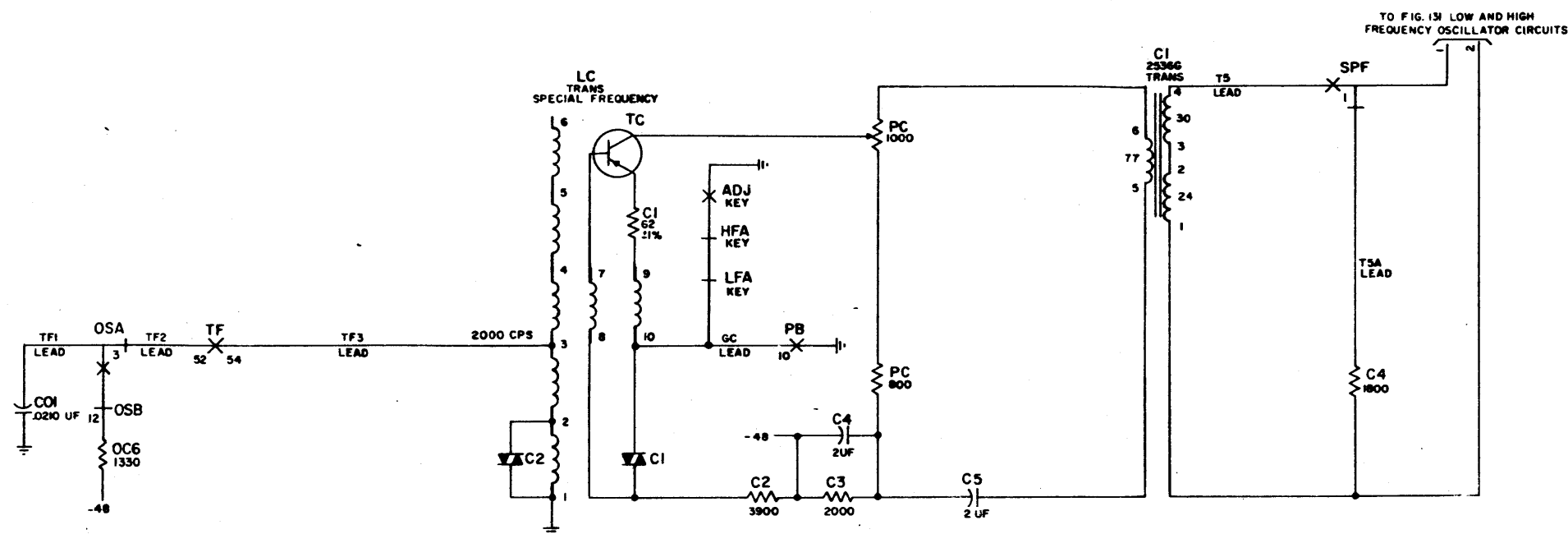


FIG. 132 - "TOUCH-TONE" - SPECIAL FREQUENCY OSCILLATOR CIRCUIT SECTION-043-7

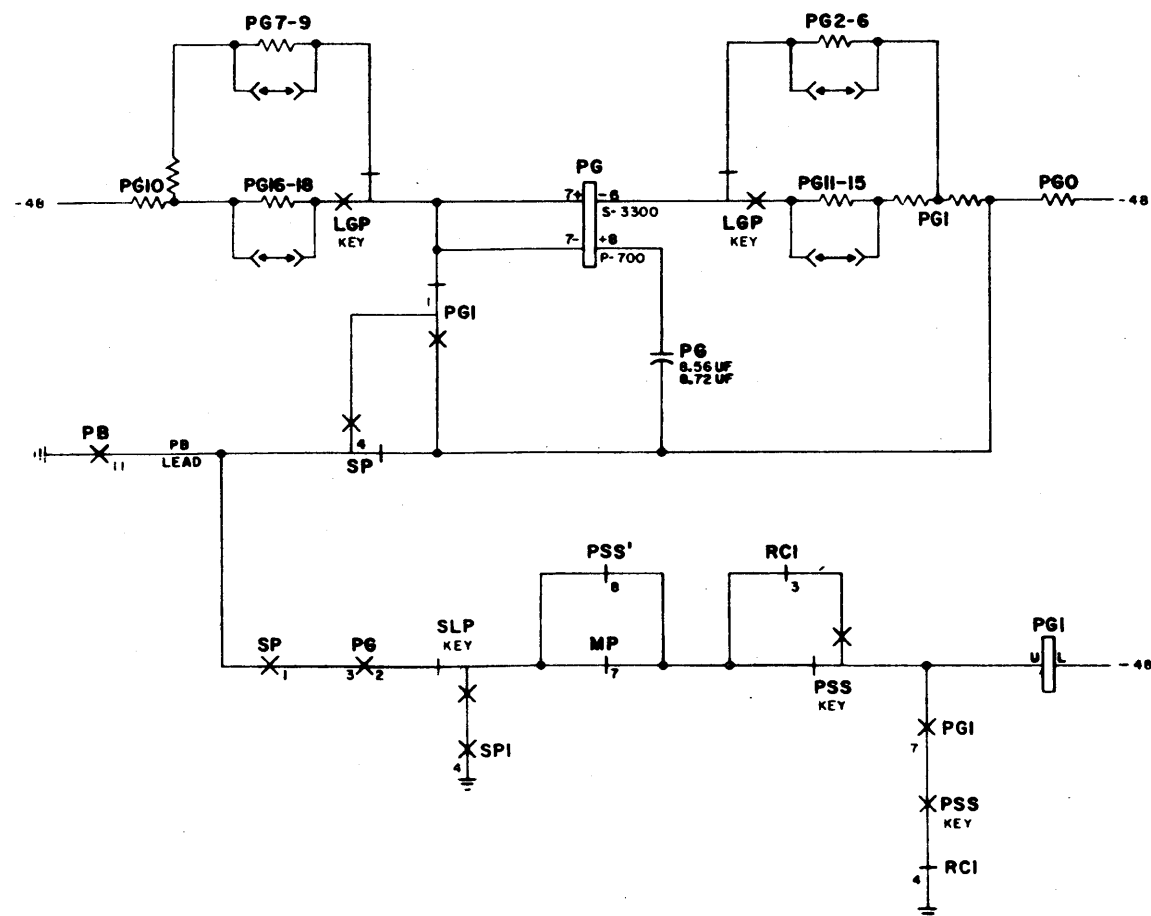


FIG. 134 - "TOUCH-TONE" - SIGNAL GENERATOR CIRCUIT SECTION-043-9,10

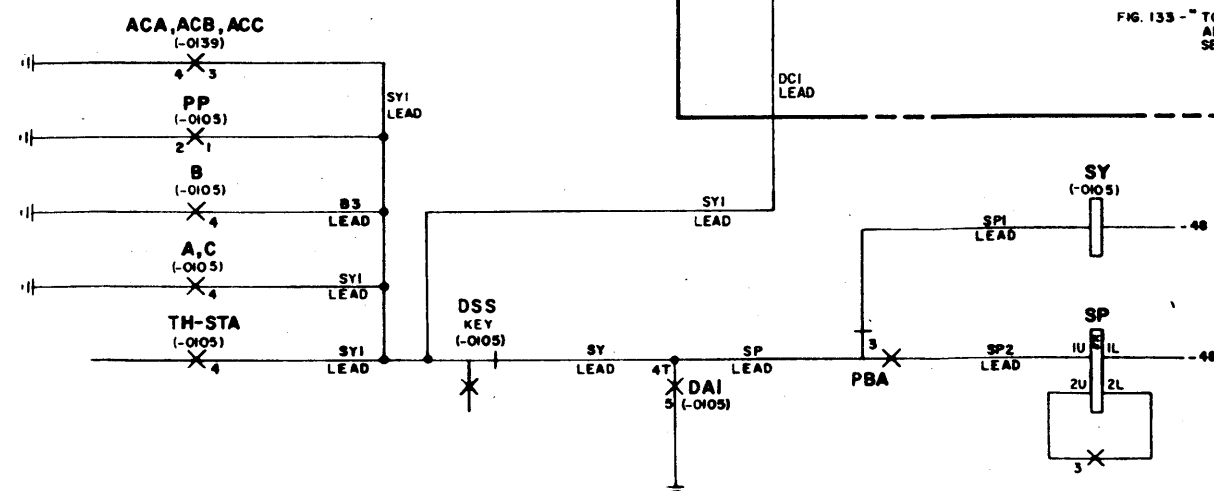


FIG. 133 - "TOUCH-TONE" - DIGIT ADVANCE CIRCUIT SECTION-043-10

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W 8 1/2 INCHES
FOR BINDING
RCN REDUCED

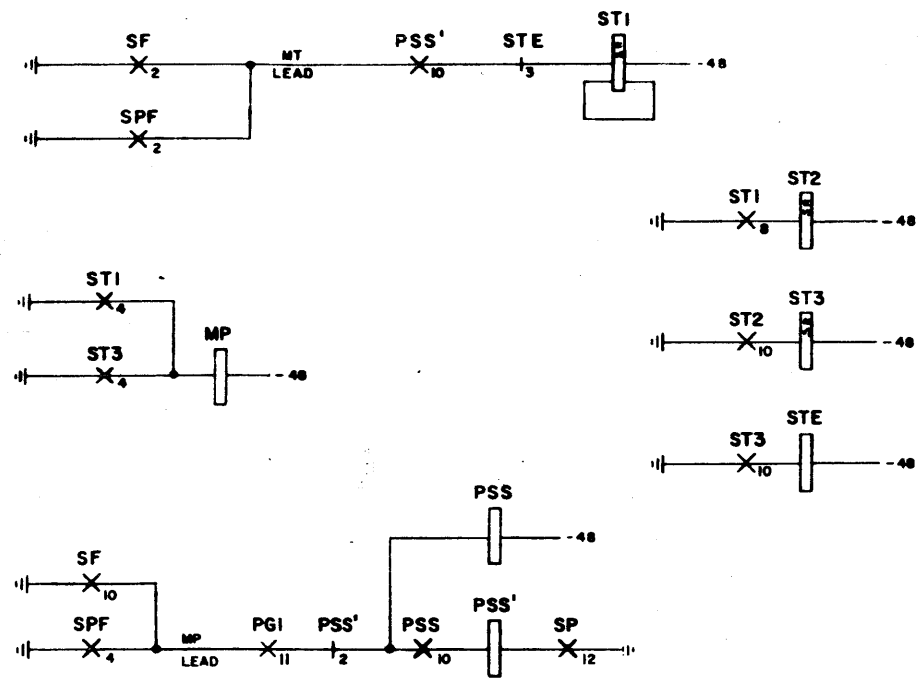


FIG. 135 - "TOUCH-TONE" - TIMING CIRCUIT
FOR SINGLE, AND SPECIAL
FREQUENCY TESTS
SECTION-0143-II

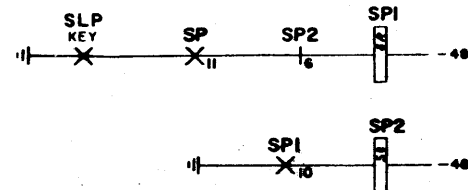


FIG. 136 - "TOUCH-TONE" - TIMING CIRCUIT
FOR SLOW PULSES
SECTION-0143-II

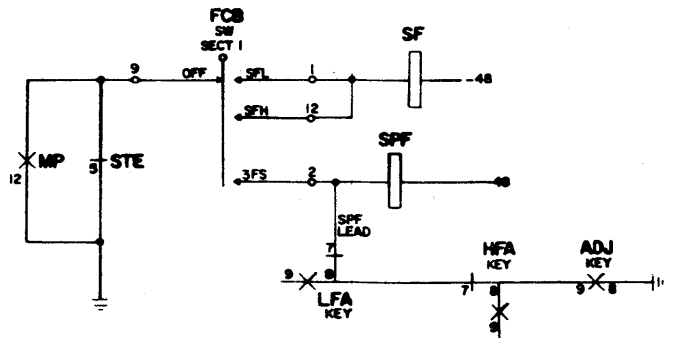


FIG. 138 - "TOUCH-TONE" - MISC TEST FEATURES
SECTION-0143-II

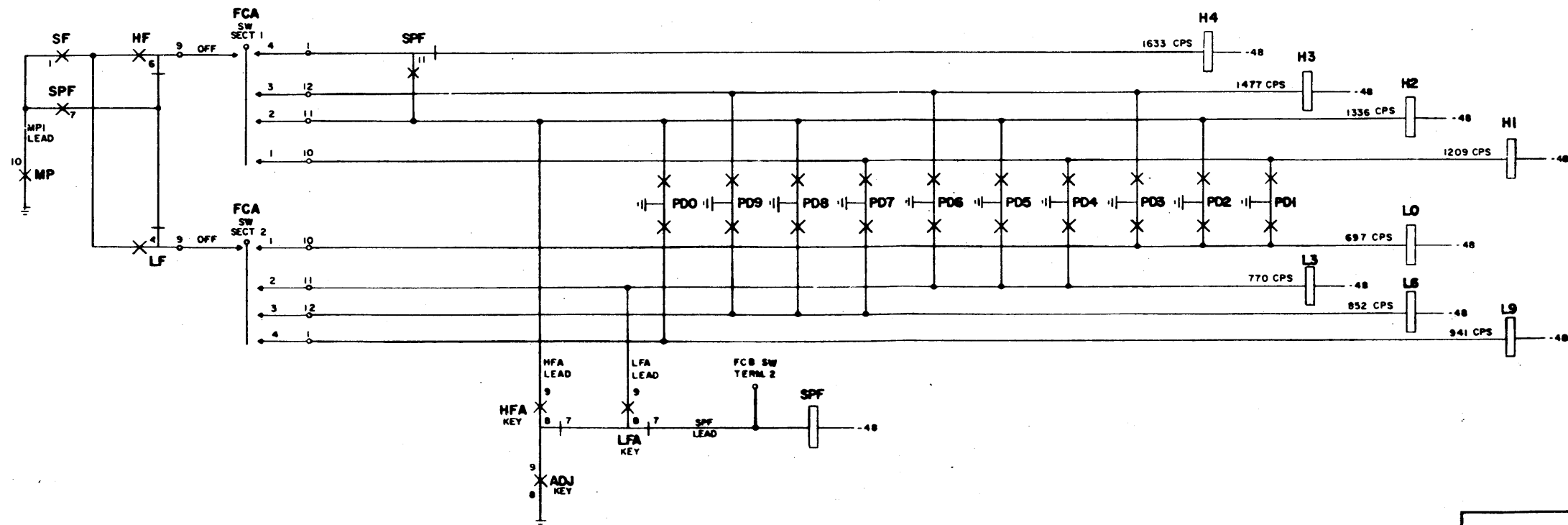
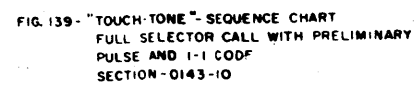


FIG. 137 - "TOUCH-TONE" - SINGLE AND SPECIAL
FREQUENCY TESTS CONTROL CRT
SECTION-0143-II

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LOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

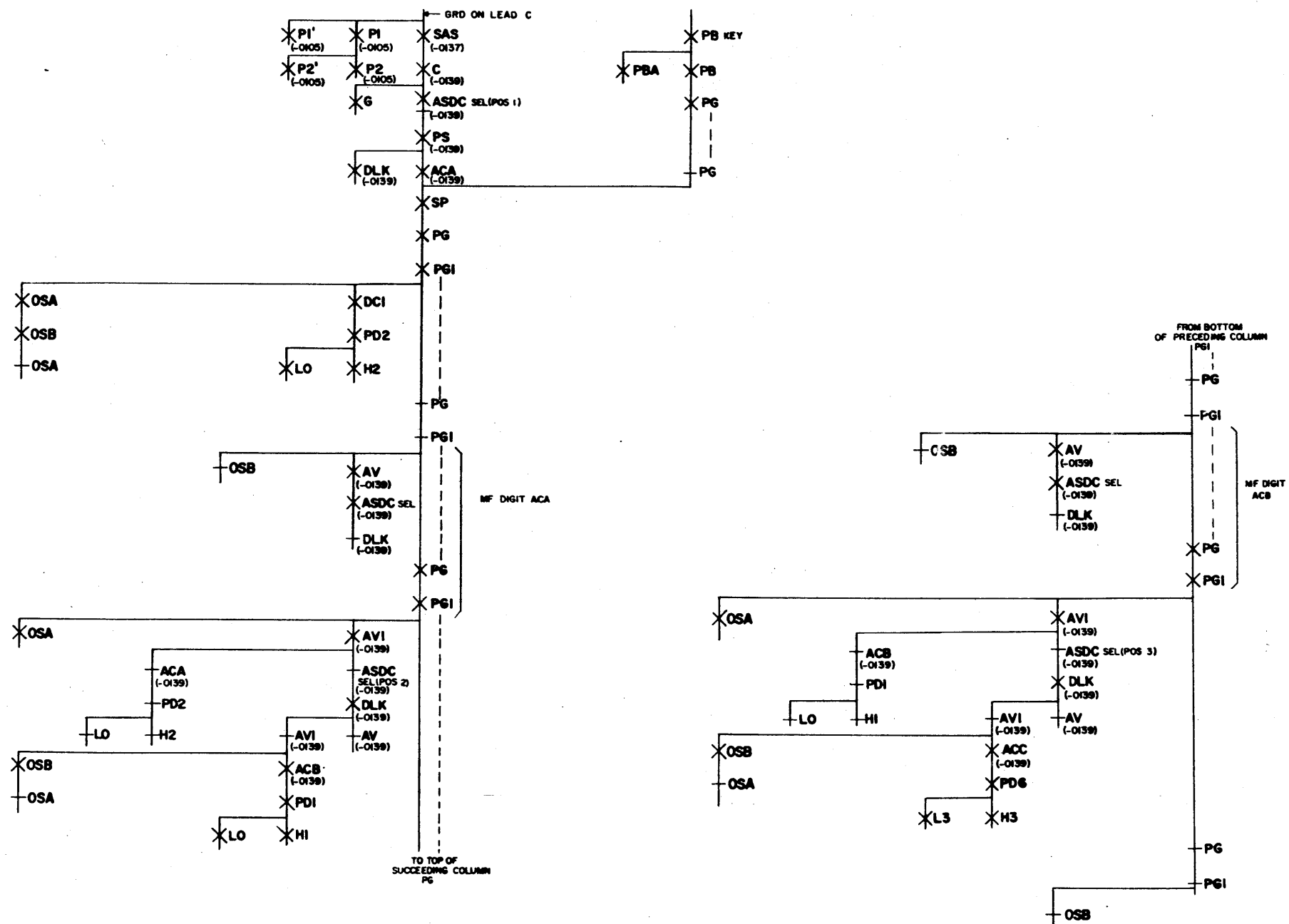


FIG. 140 - "TOUCH-TONE" SEQUENCE CHART -
TEN DIGIT DDD CALL
SECTION - 0143-10

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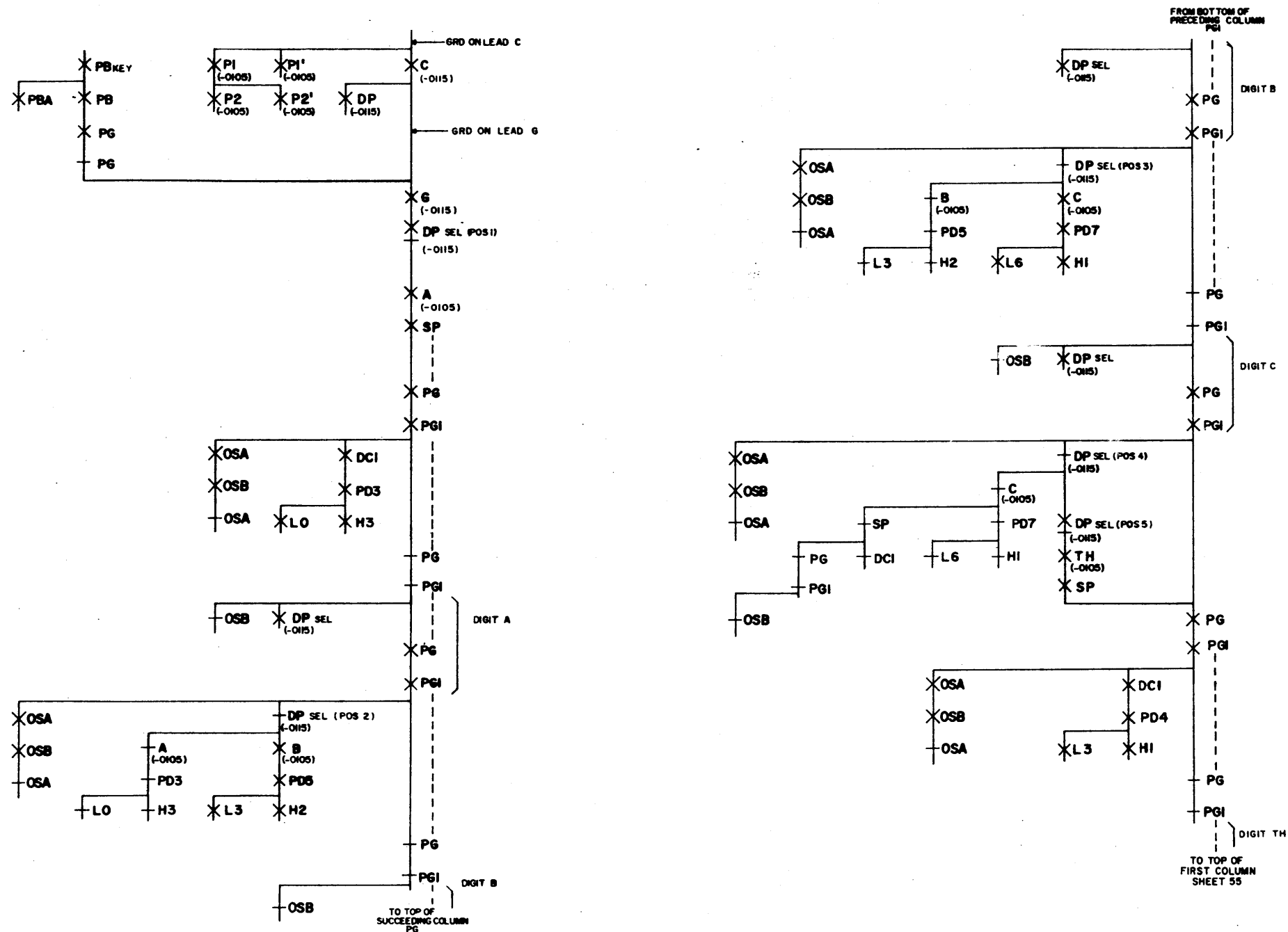
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1 8 3 INCHES
8
B BINDING
W REDUCED

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PART OF FIG. 141 - "TOUCH-TONE" - SEQUENCE CHART -
PCI TEST CALL
SECTION - 043 - 10

ISSUE
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CD-25221-01

BELL TELEPHONE LABORATORIES
INCORPORATED

2

6S

ES-558991
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PART OF FIG. 141 - "TOUCH - TONE" - SEQUENCE CHART -
PCI TEST CALL
SECTION - OM43-10

18 1/2 INCHES
R BINDING
N REDUCED

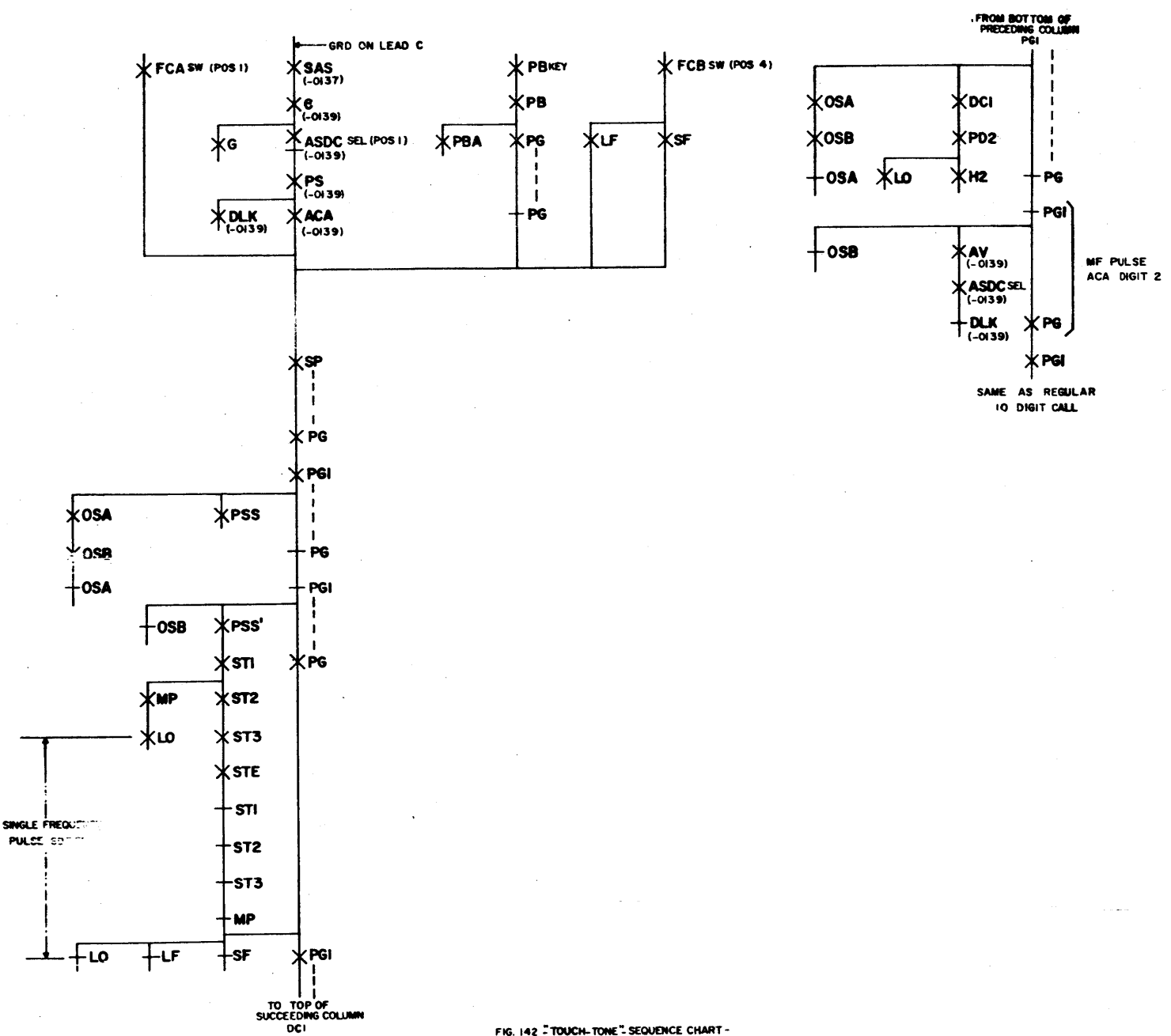


FIG. 142 TOUCH-TONE SEQUENCE CHART -
SINGLE FREQUENCY TEST
SECTION-0443-11

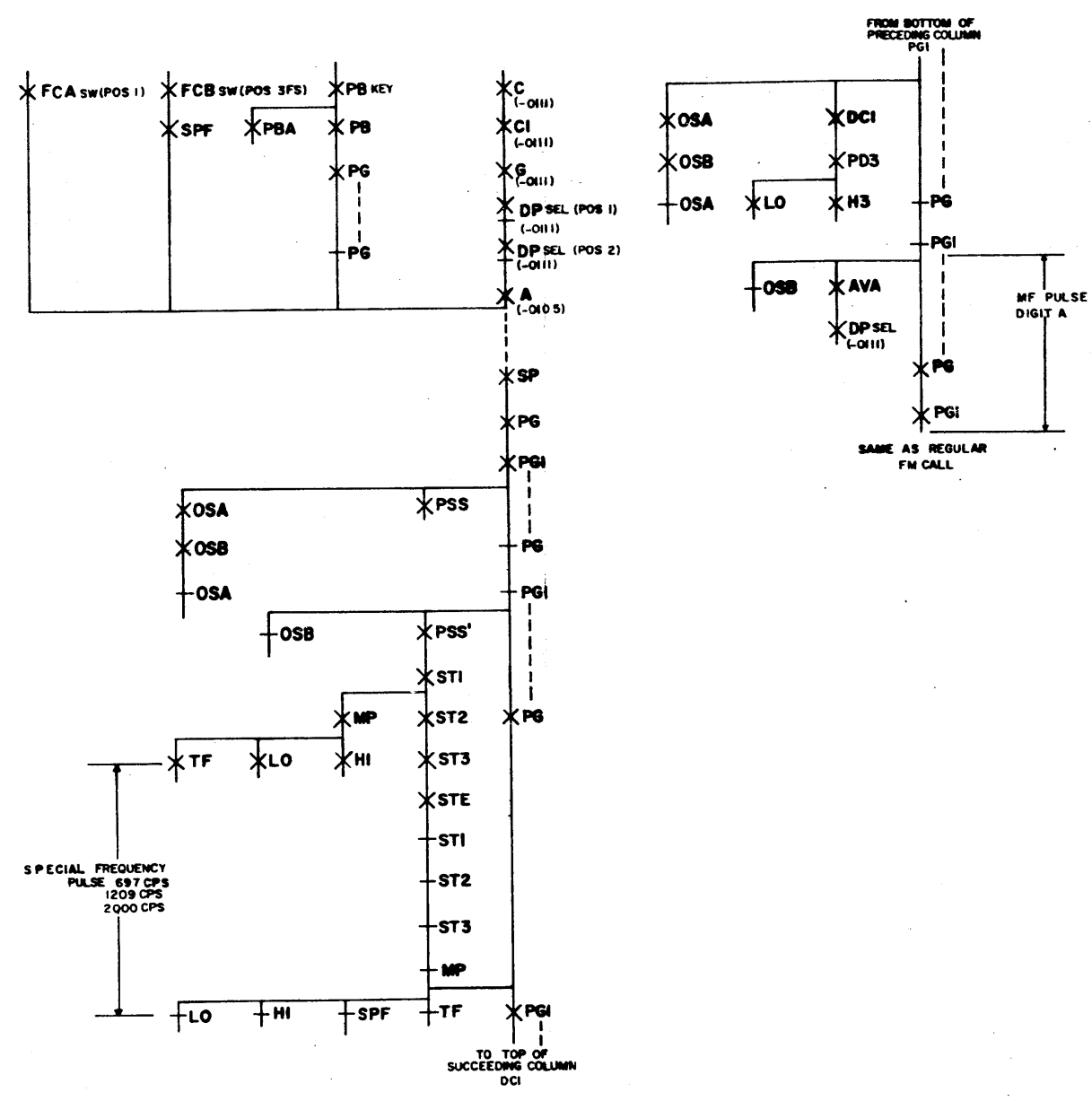


FIG. 143 TOUCH-TONE SEQUENCE CHART -
SPECIAL FREQUENCY TEST
SECTION-0443-11

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ISSUE
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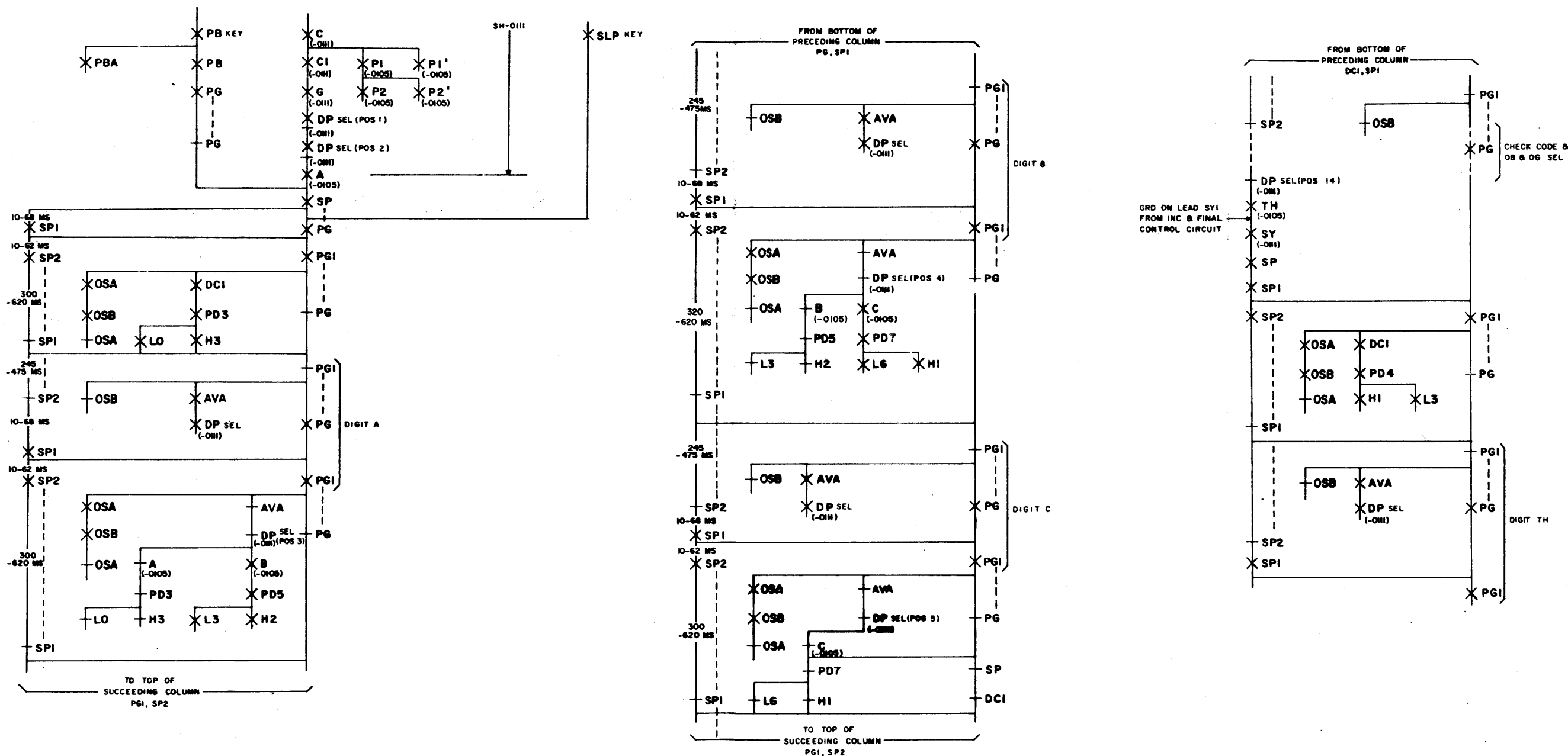


FIG. 144 - "TOUCH-TONE" SEQUENCE CHART - SLOW PULSE TEST SECTION - 0143-11

LOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

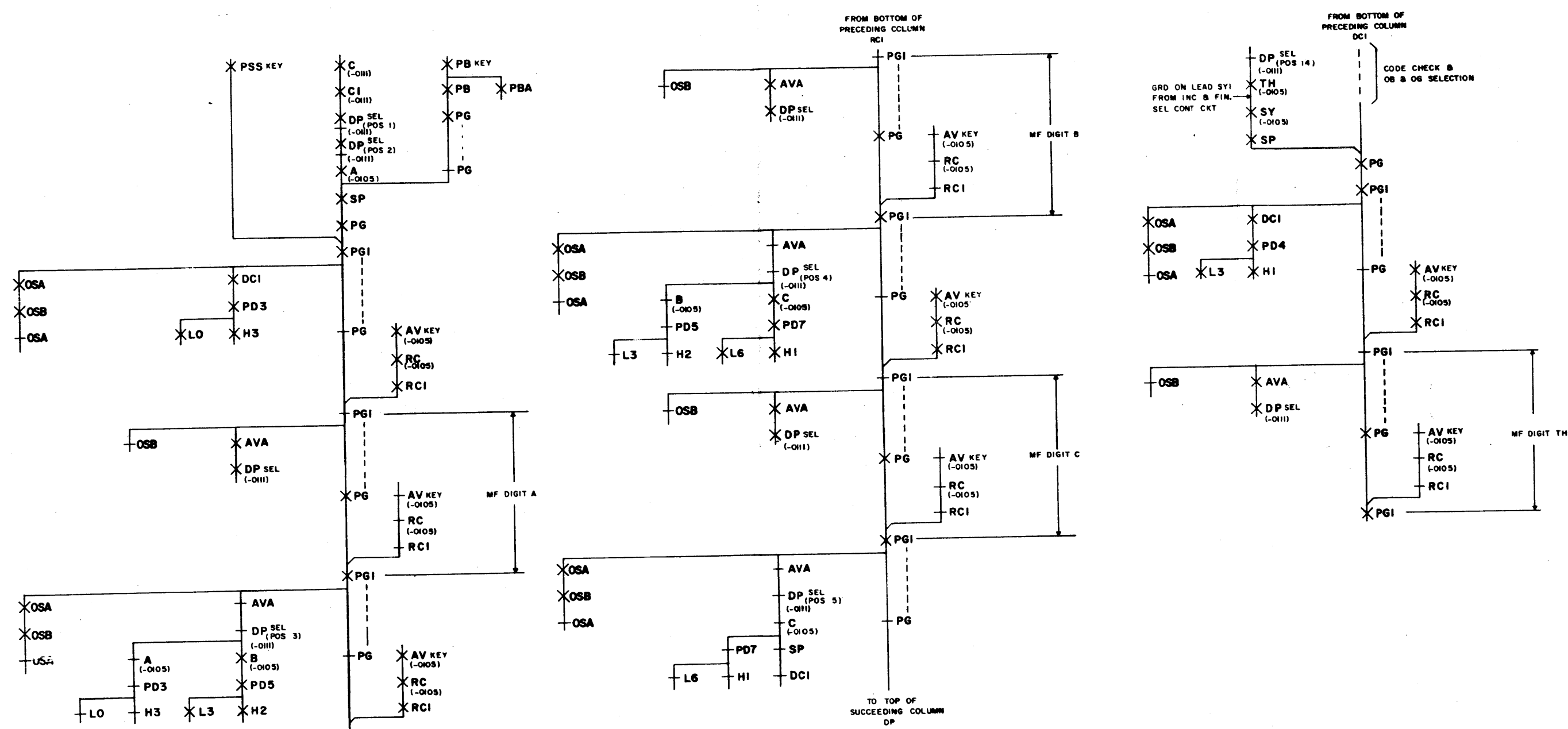
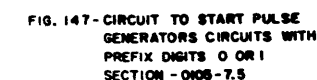
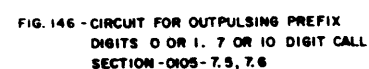


FIG. 145 - "TOUCH-TONE" - SEQUENCE CHART - PULSING
STEP BY STEP TEST
SECTION - 0143-12

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W 8 3/8 INCHES
R BINDING
IN REDUCED

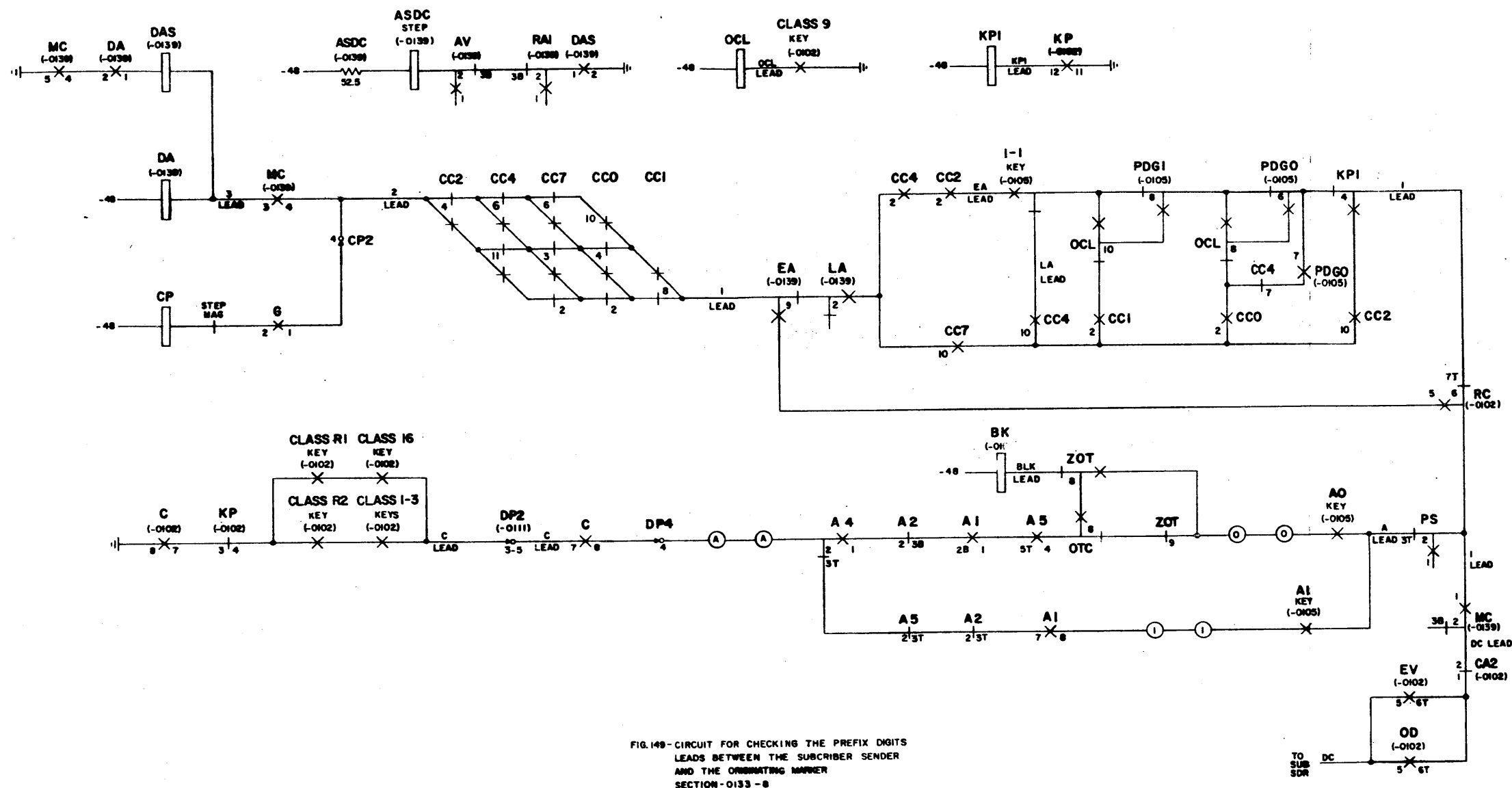


FIG. 149 - CIRCUIT FOR CHECKING THE PREFIX DIGITS
LEADS BETWEEN THE SUBSCRIBER SENDER
AND THE OPERATING MARKER
SECTION - 0133 - 8

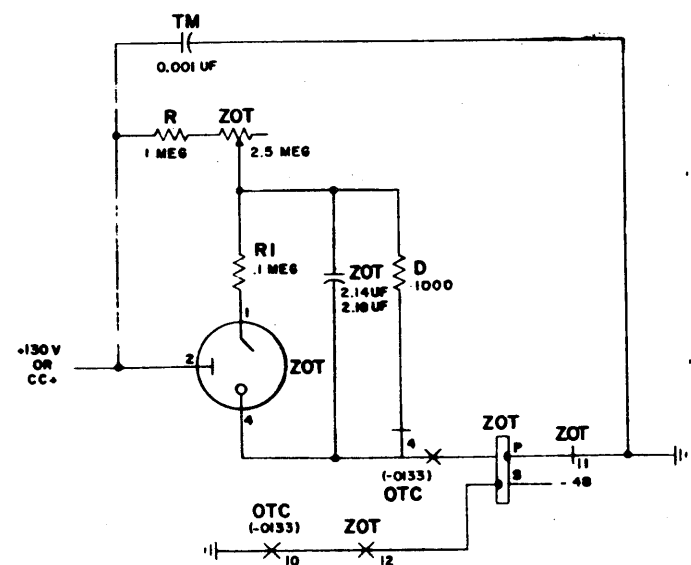


FIG. 150 - ZERO OPERATOR TIMING CIRCUIT
SECTION - 0133 - 9

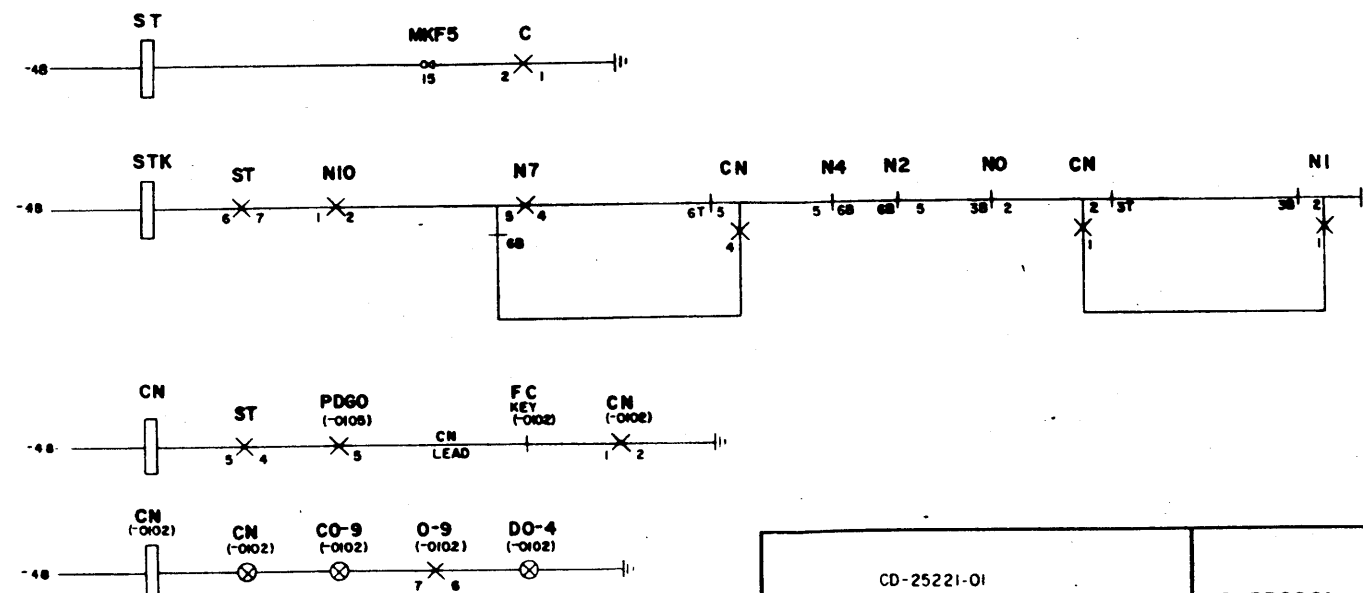
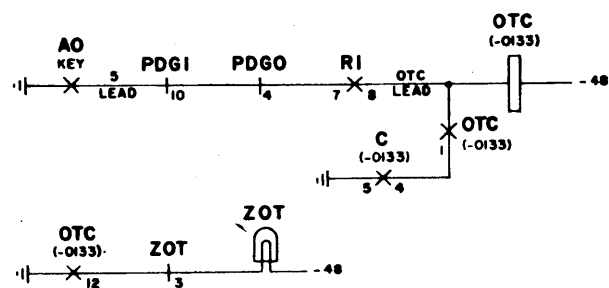


FIG. 151 - CHECKING THE START PULSE ON PREFIX DIGIT 0 COIN CALLS.
SECTION - 0141 - 11

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LOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

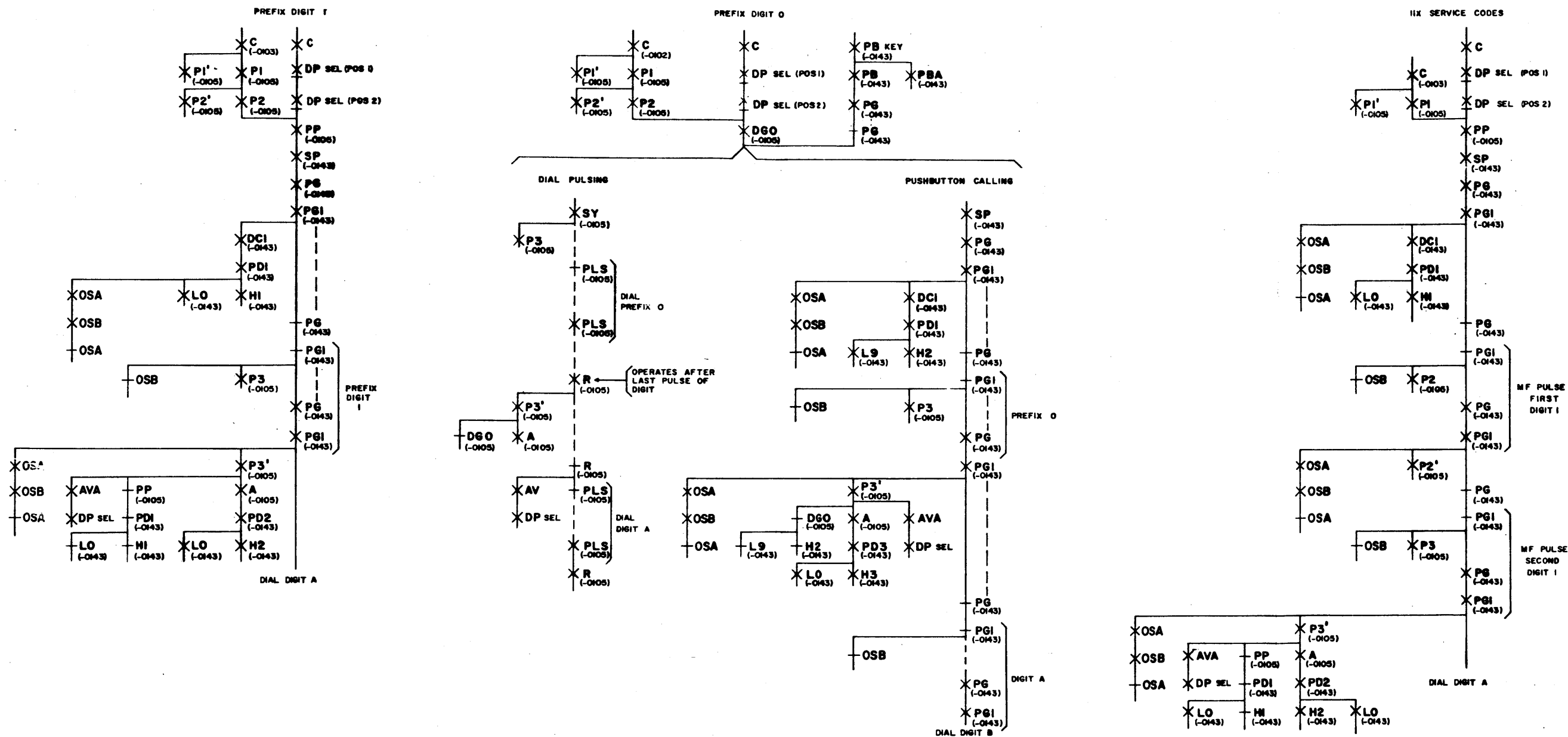


FIG. 152- SEQUENCE CHARTS-PREFIX DIGITS 0,1
FULL SELECTOR CALL
SECTION-0111-6

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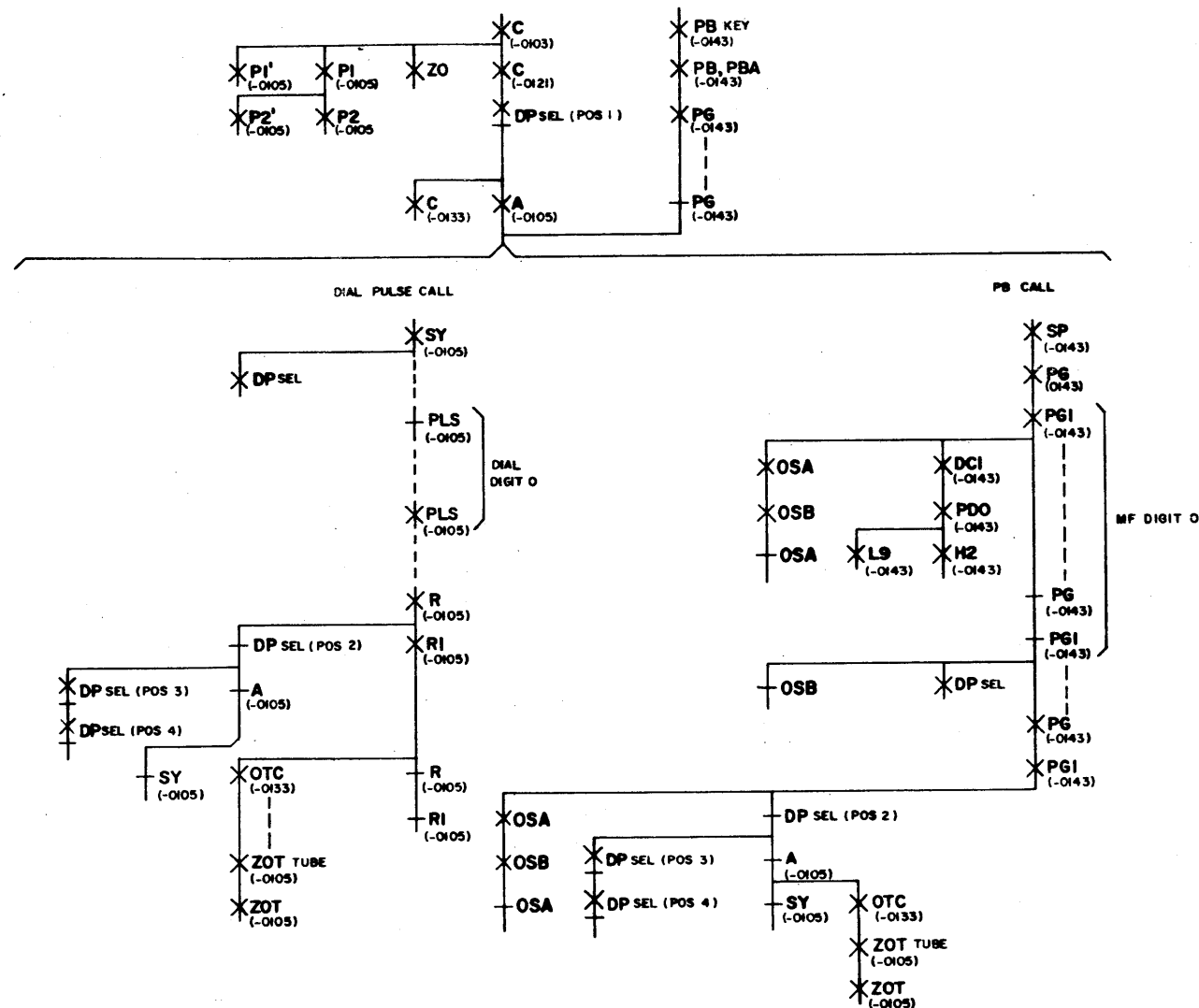


FIG. 153 - ZERO OPERATOR CALL - DIAL DIGIT 0
SECTION - 0121-11

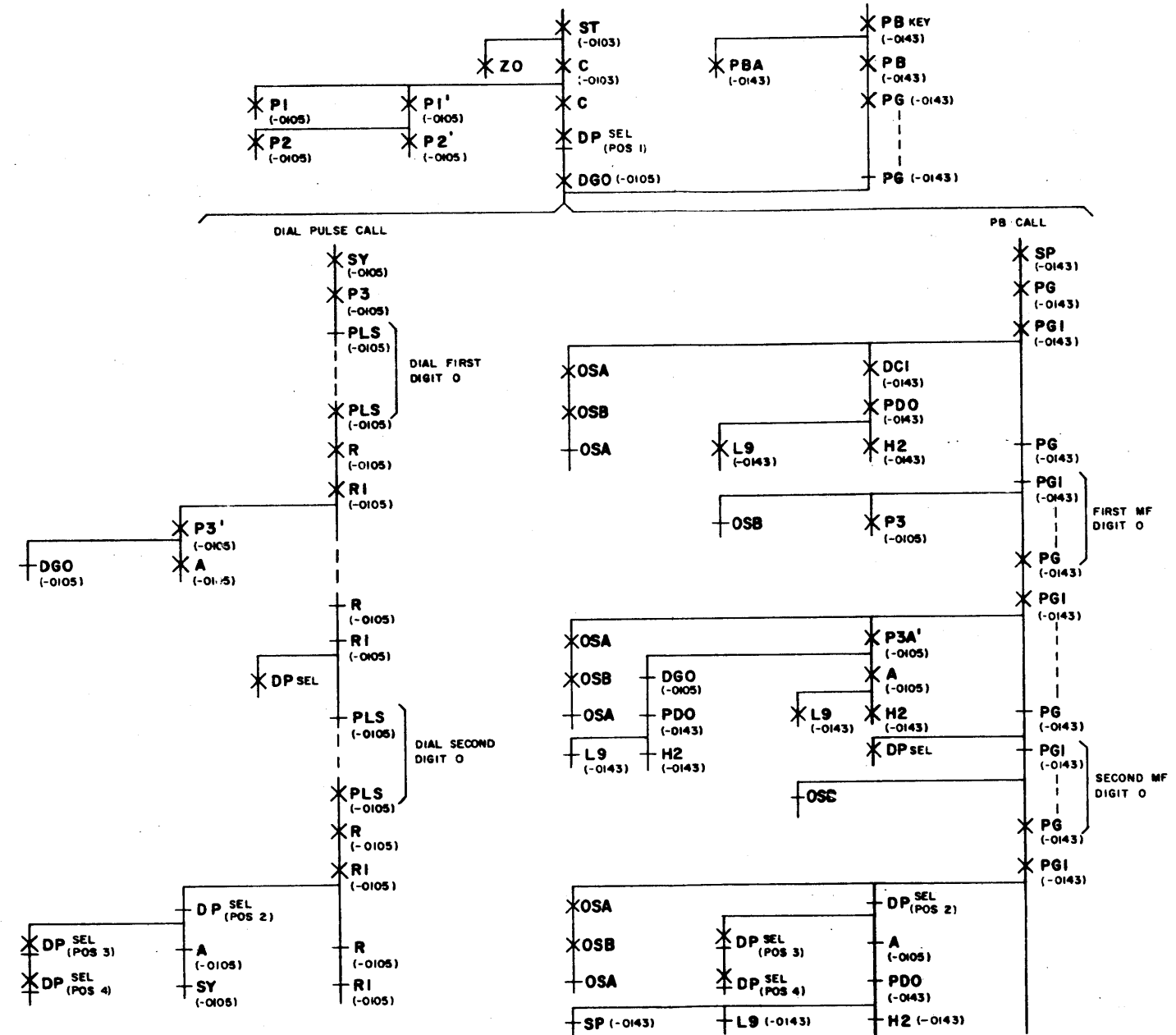


FIG. 154 - ZERO OPERATOR CALL - DIAL
DIGITS (0-0)
SECTION - 0121-11

LOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED

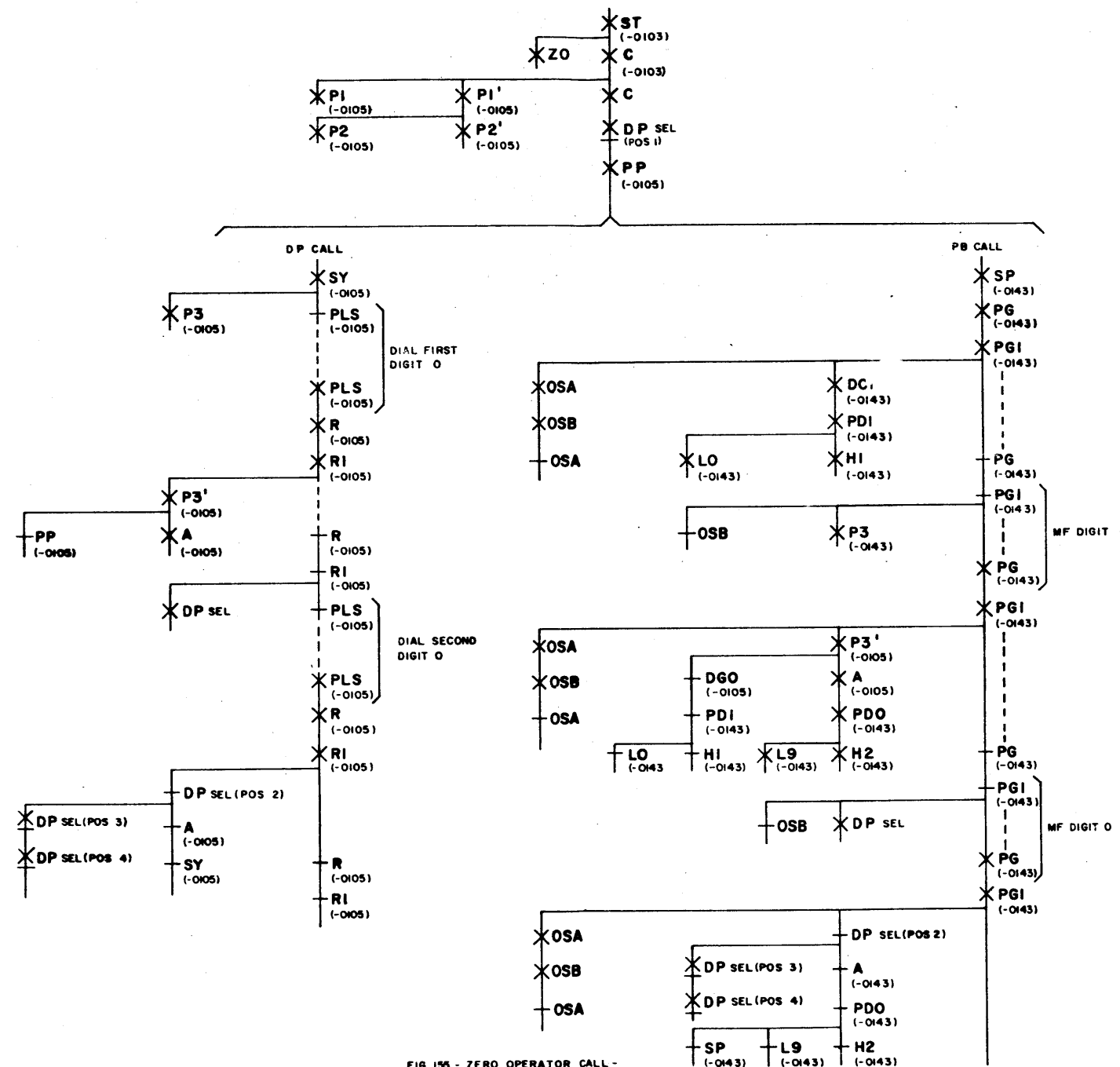


FIG. 155 - ZERO OPERATOR CALL -
DIAL DIGITS (1-0)
SECTION - 0121-11

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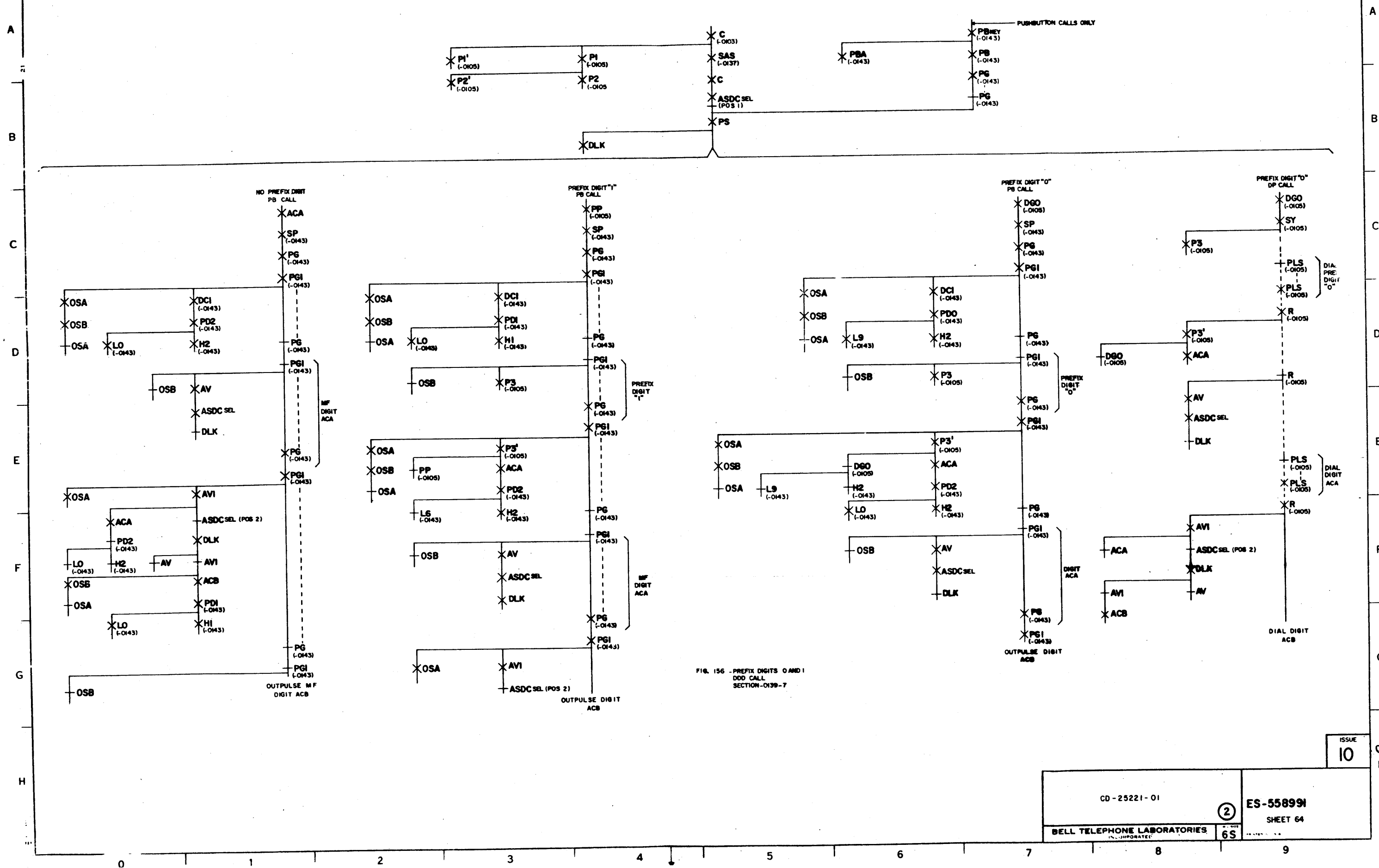
2

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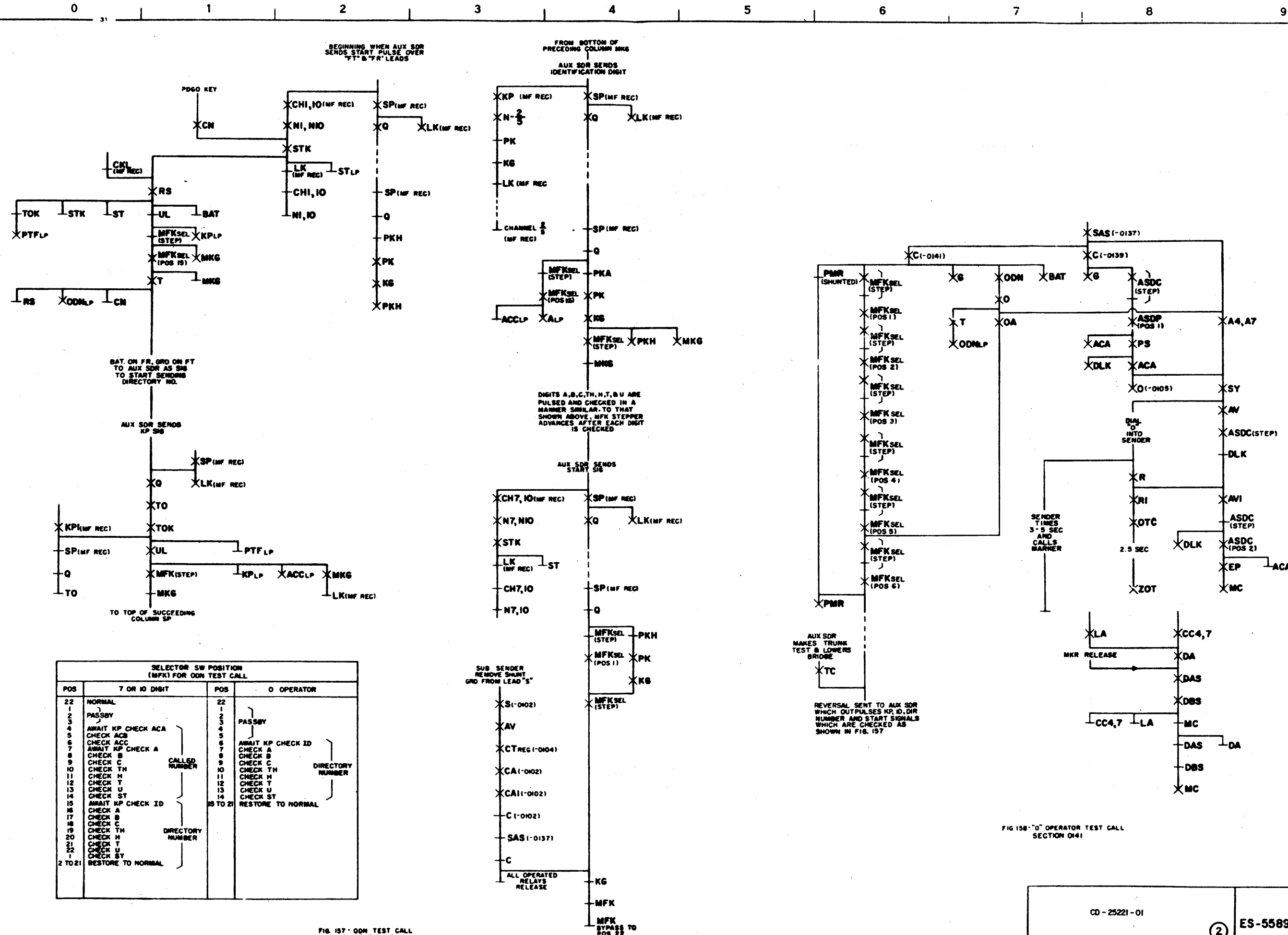
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LOW 8 $\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED



LOW 8 3/8 INCHES
FOR BINDING
WHEN REDUCED



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ISSUE
10

ALLOW $8\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED

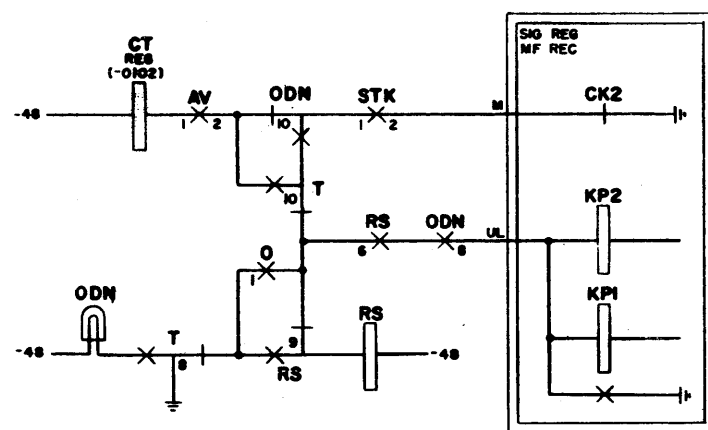


FIG. 159 - RELEASE AND RESET
FOR ODN
SECTION 0141

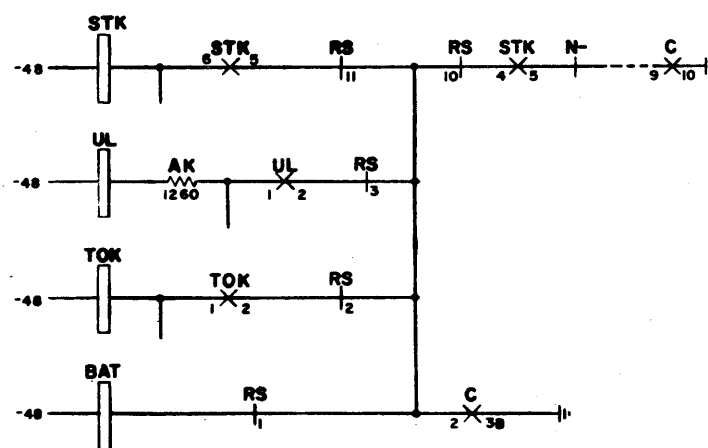


FIG. 160 - RESET FOR ODN
SECTION 0141

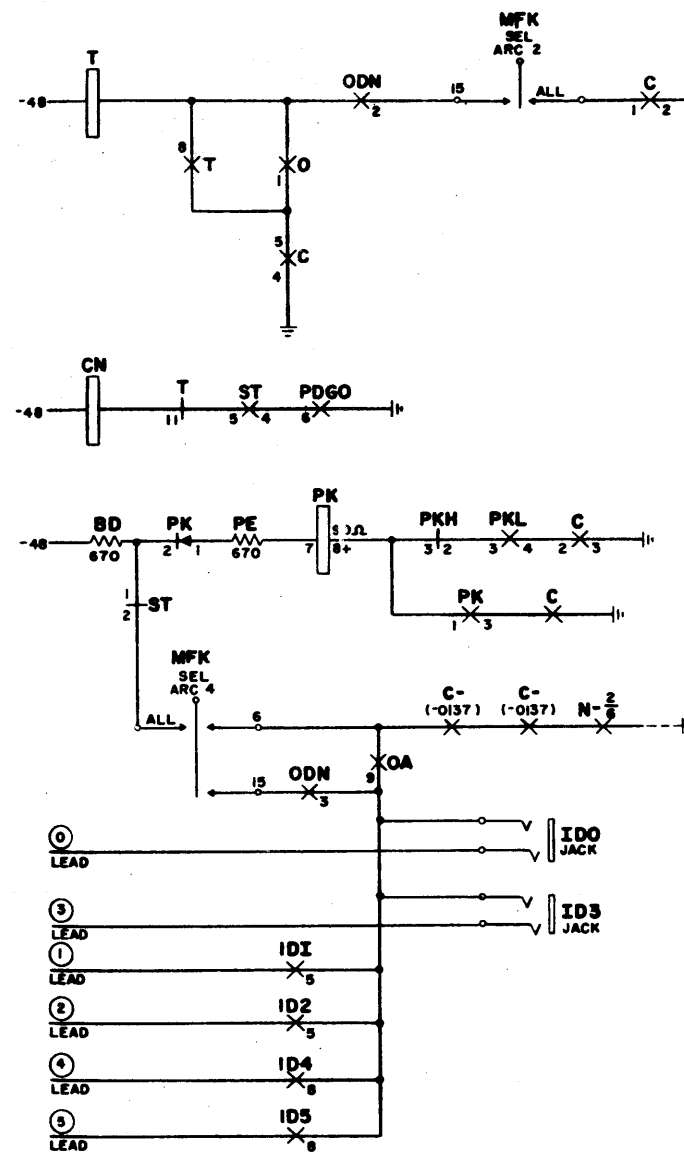
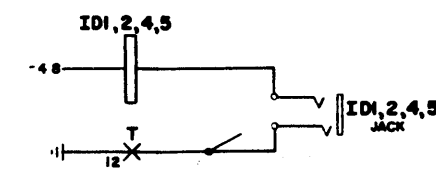
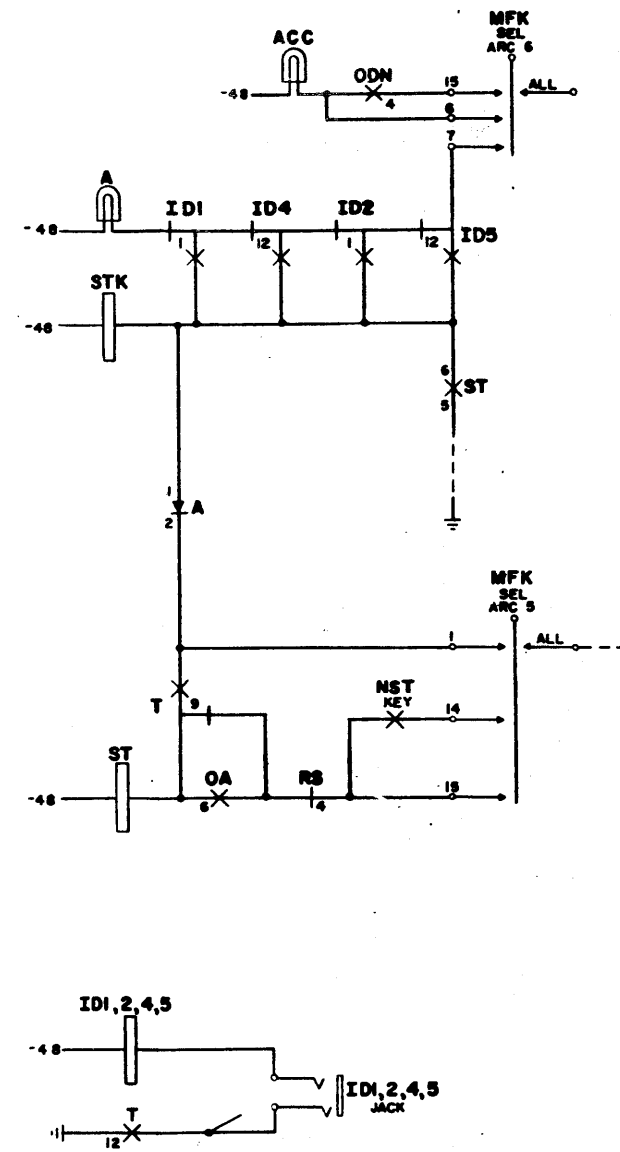
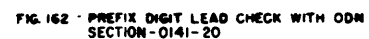


FIG. 161 - DIGIT CHECK FOR ODN
SECTION 0141



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ALLOW $8\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED

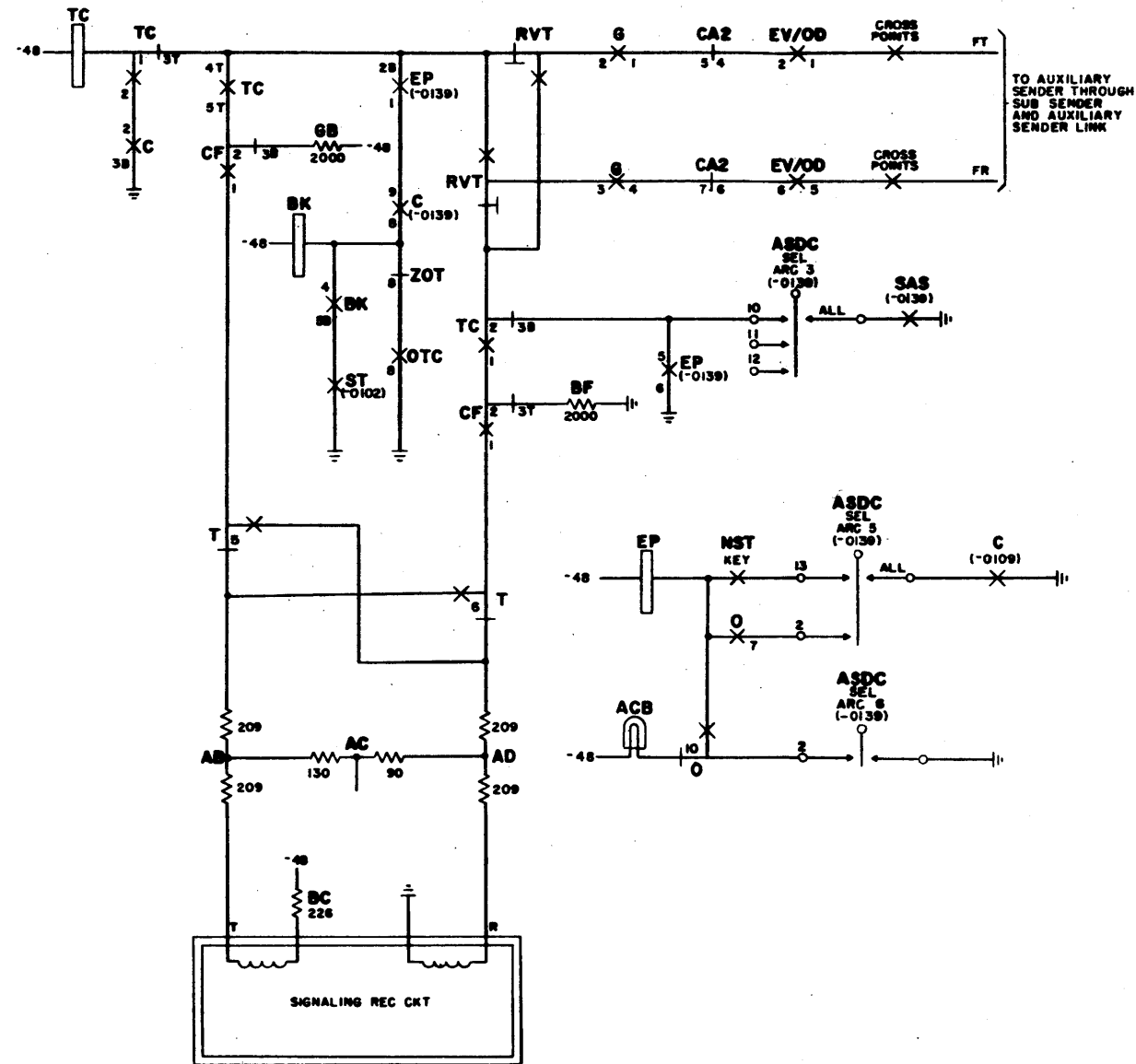


FIG. 163 - TEST TRUNK
SECTION - 0141-20

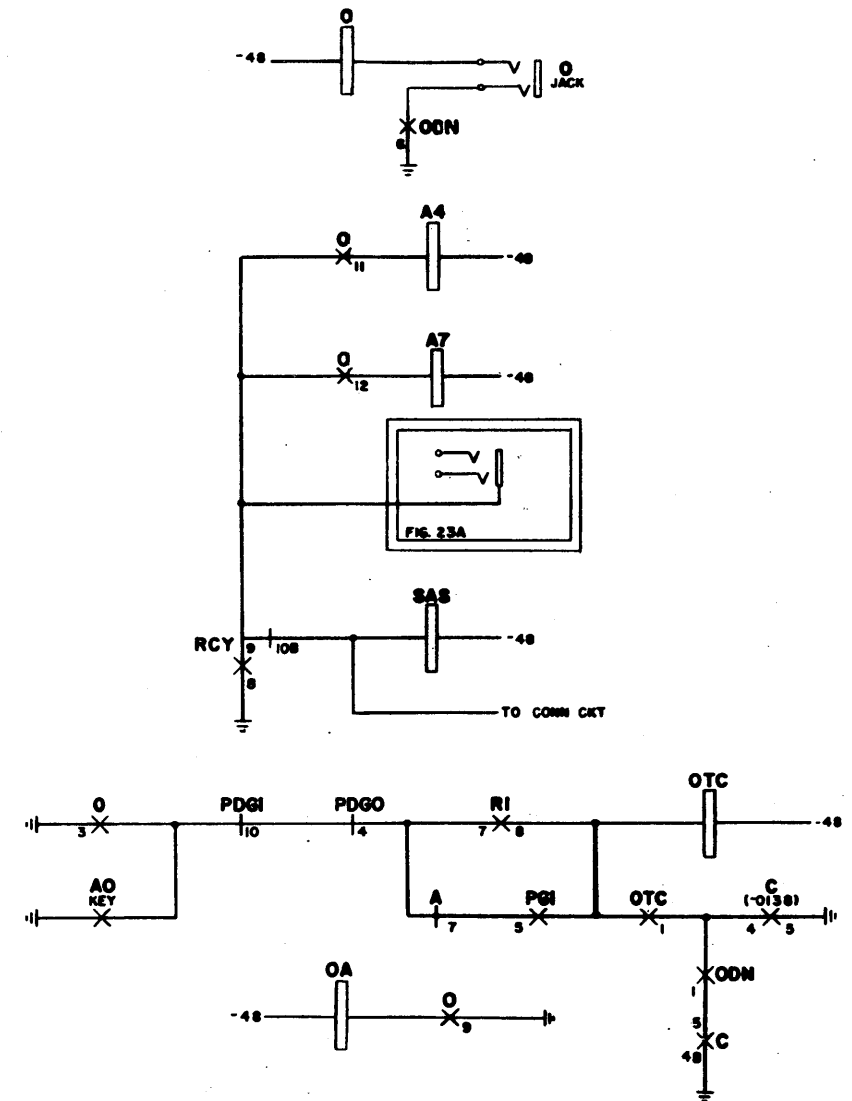


FIG. 164 - "O" OPERATOR
ODN CALL
SECTION - 0141-20

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ALLOW $8\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED

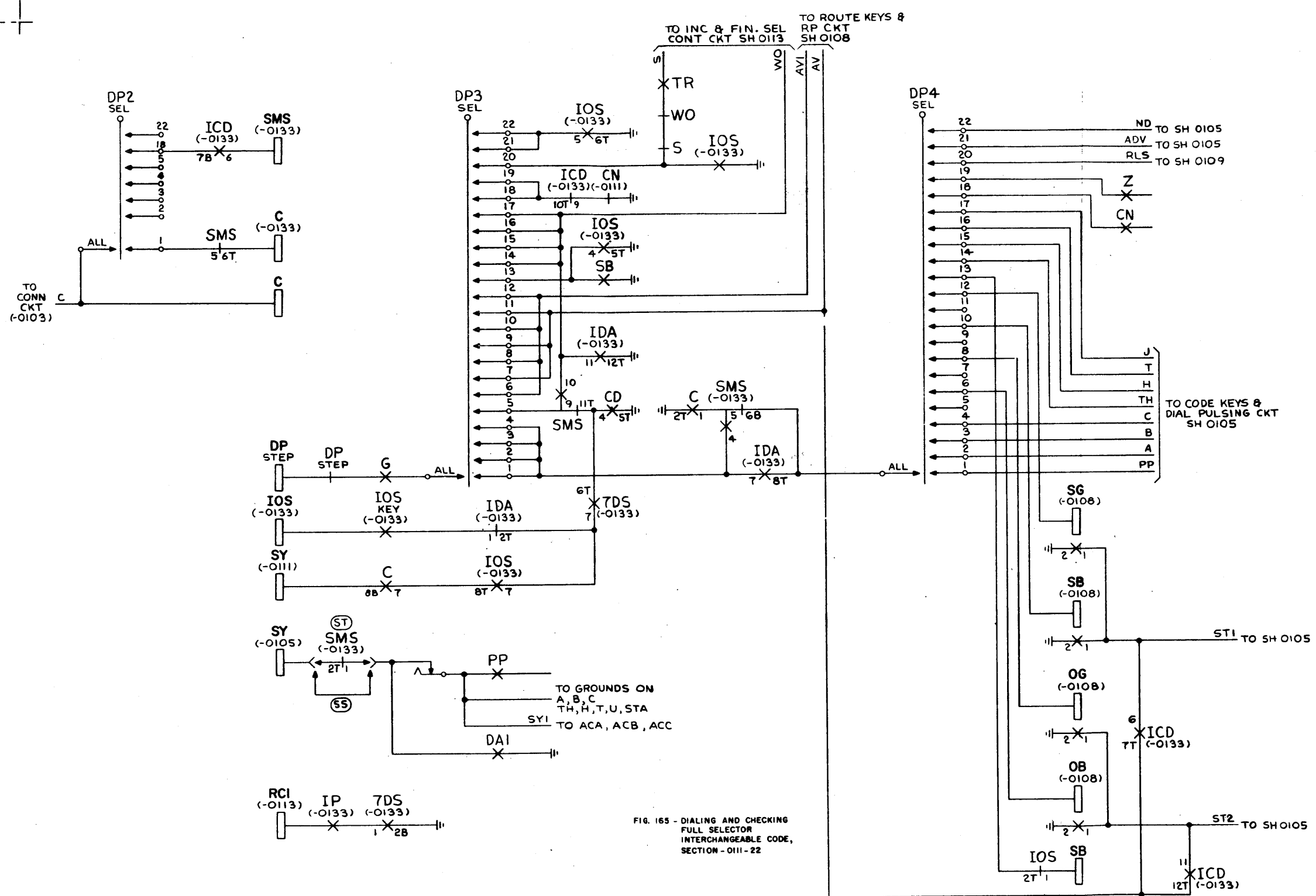


FIG. 165 - DIALING AND CHECKING
FULL SELECTOR
INTERCHANGEABLE CODE,
SECTION - 0111-22

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ALLOW $8\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED

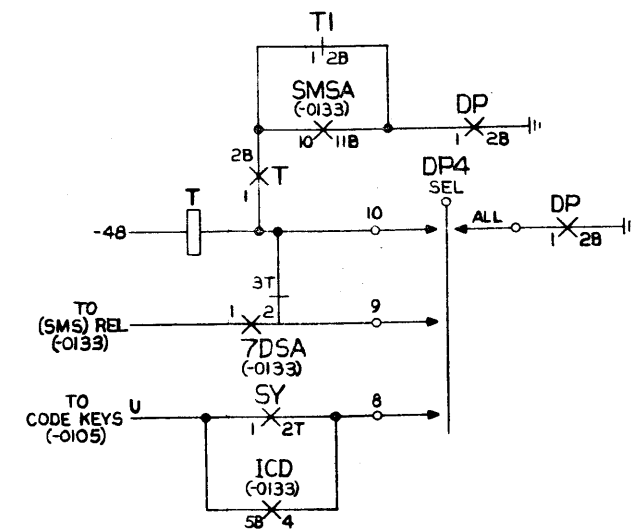
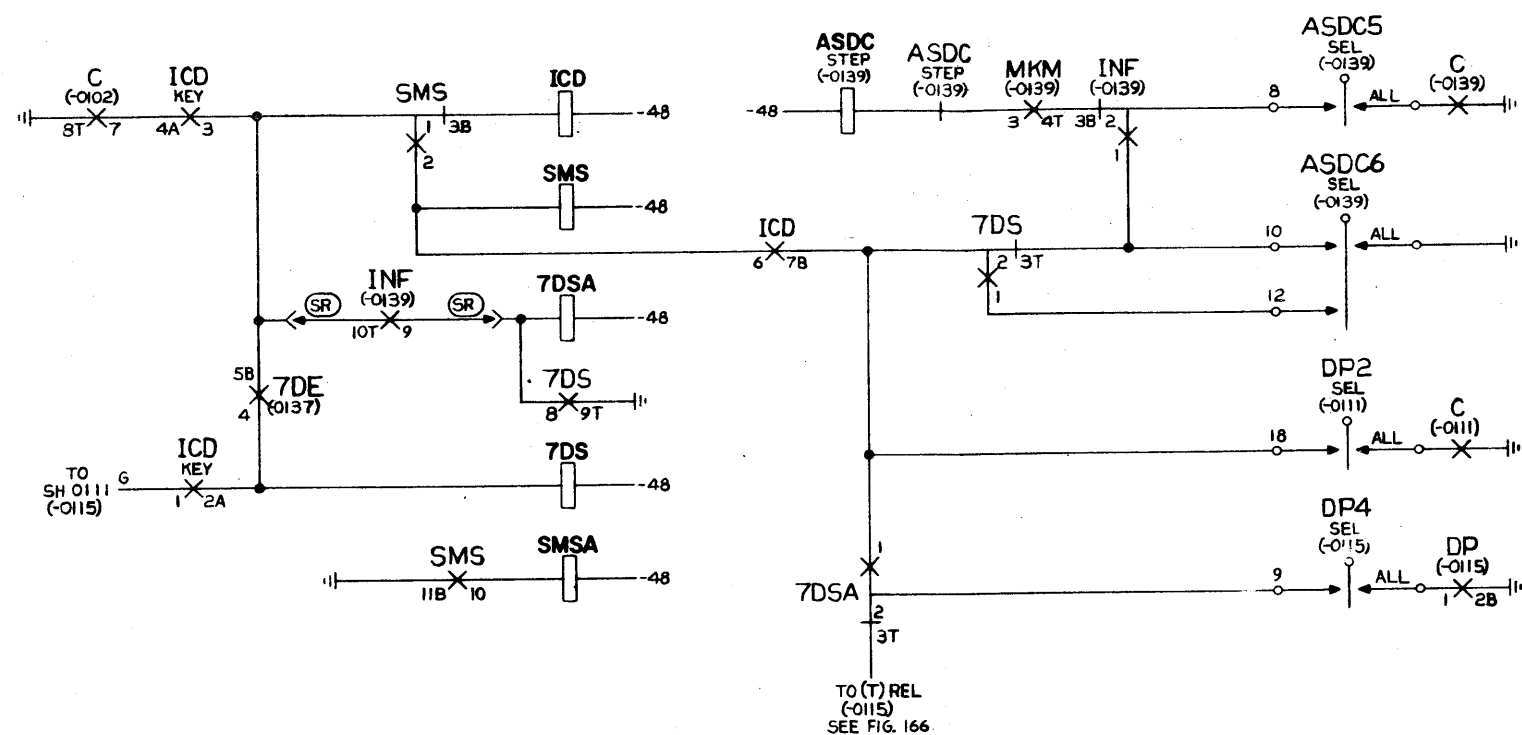


FIG. 166 - DIALING AND CHECKING,
PCI INTERCHANGEABLE CODE,
SECTION -0115-25

PREPARATION FOR FIRST
AND SECOND SEIZURE

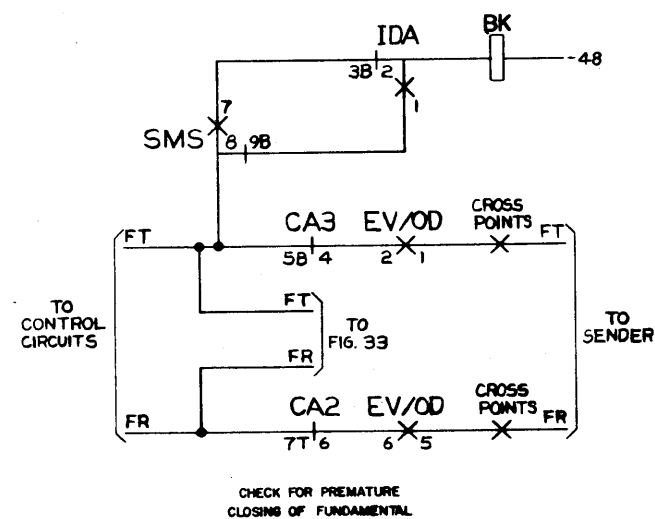
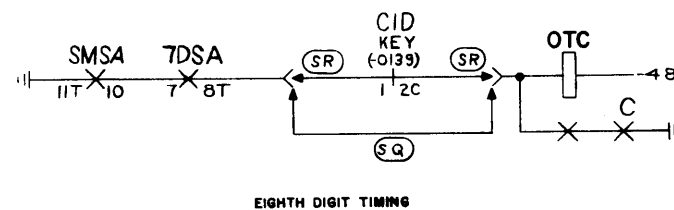


FIG. 167 - PREPARATION -
INTERCHANGEABLE CODE,
SECTION -0133-21



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ALLOW $8\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED

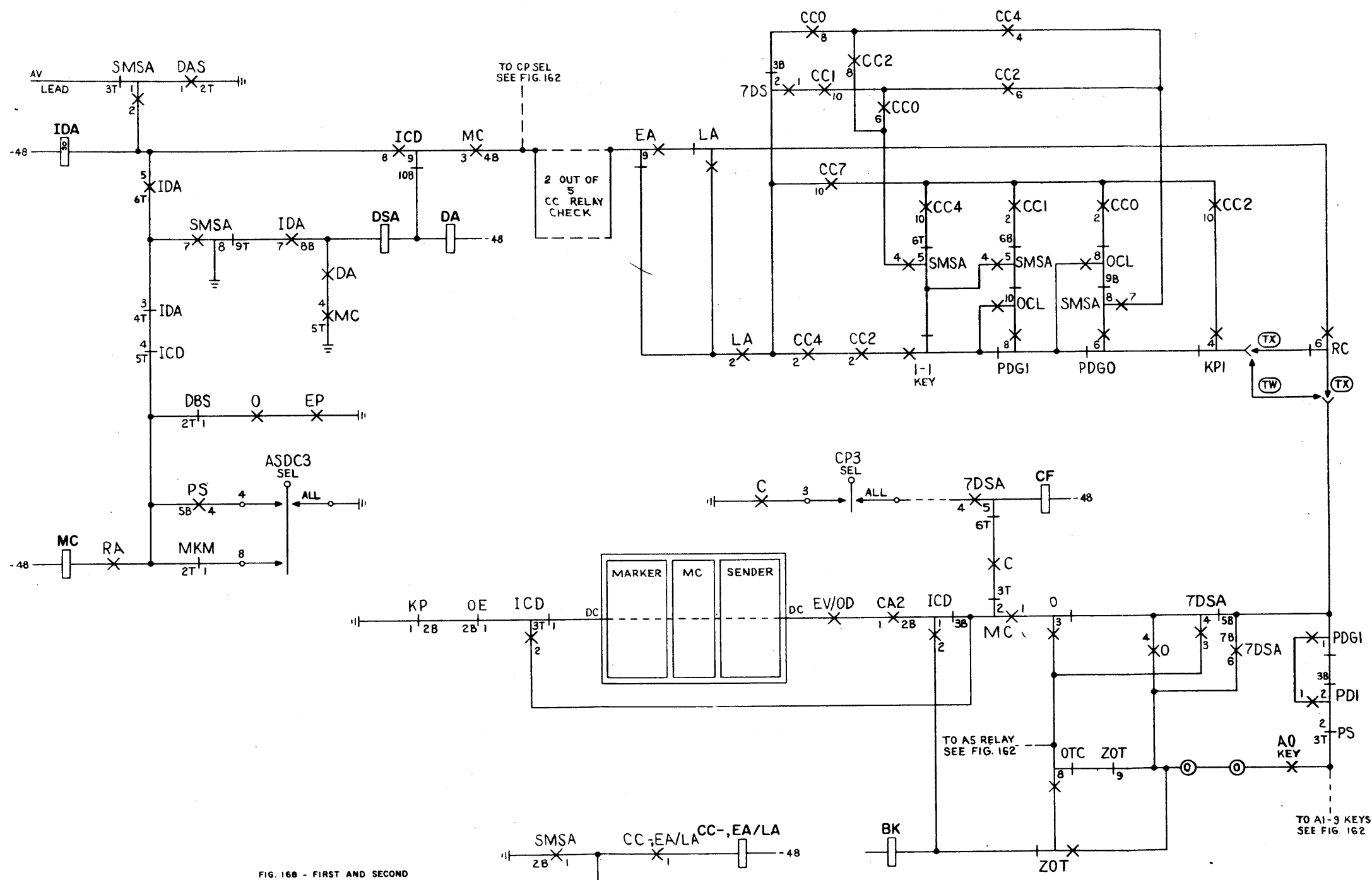


FIG. 168 - FIRST AND SECOND
SEIZURE CHECK,
INTERCHANGEABLE CODE,
SECTION - 0133-21

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ISSUE
10

ALLOW $8\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED

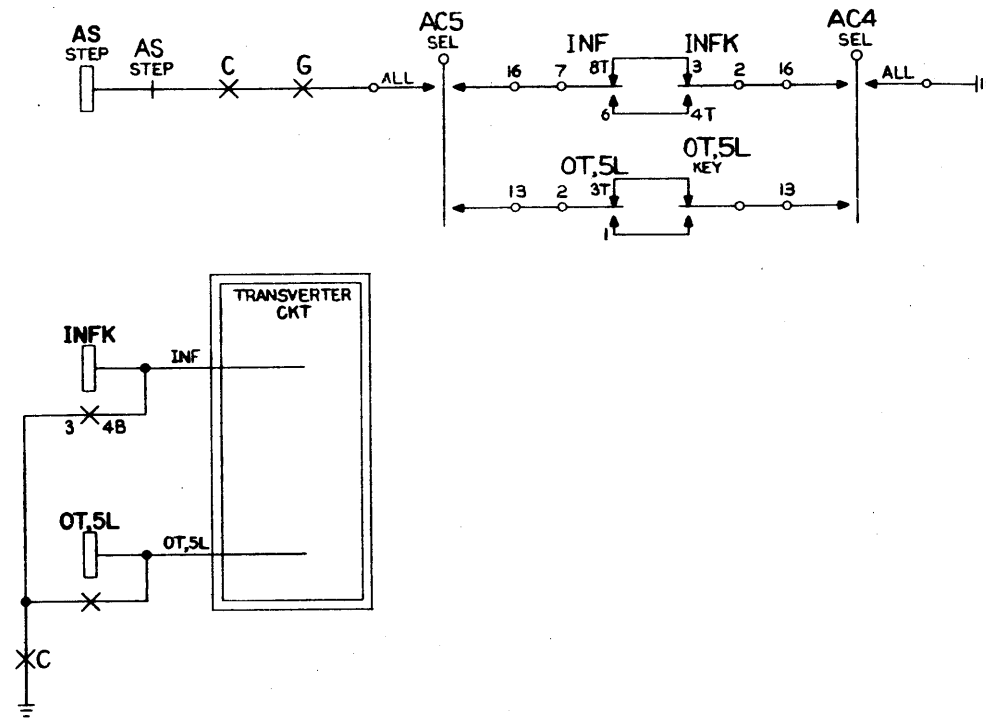


FIG. 169 - INF AND 5L LEAD CHECK,
SECTION - 0135-6

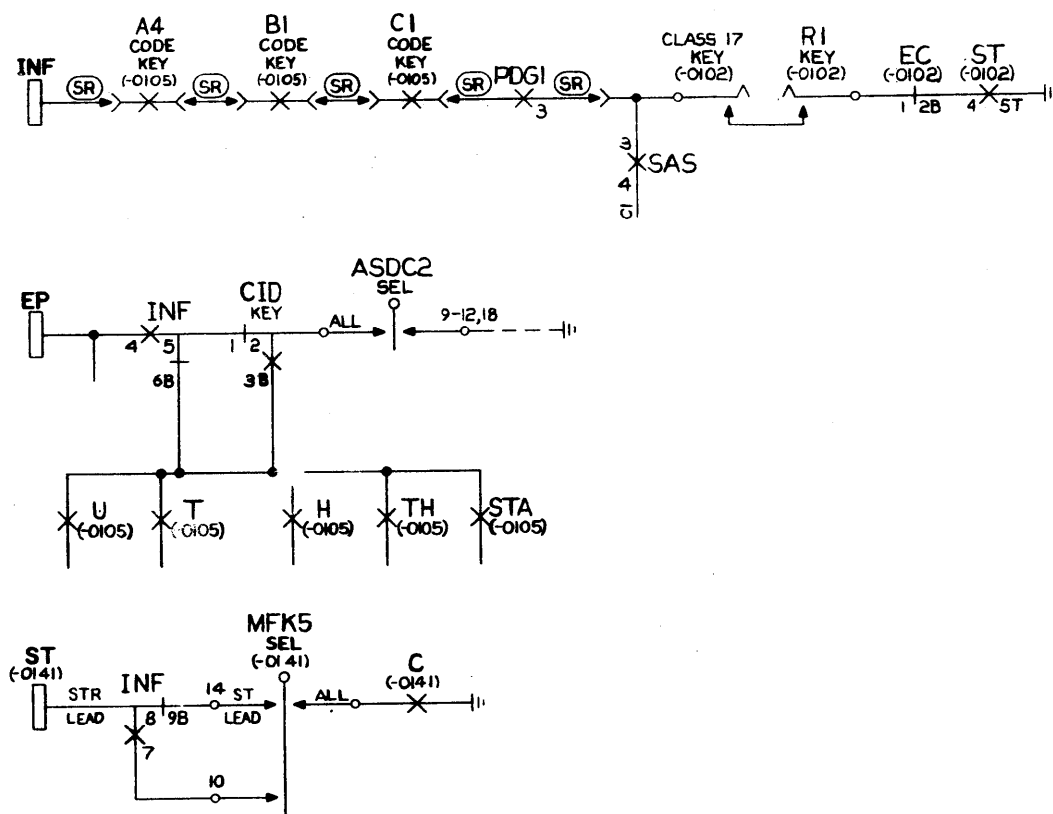


FIG. 170 - INFORMATION CODE 411,
SECTION - 0139-27

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A B C D E F G H J K L M N P Q R S T U V W X Y Z AA AB AC AD AE

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ALLOW $8\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED

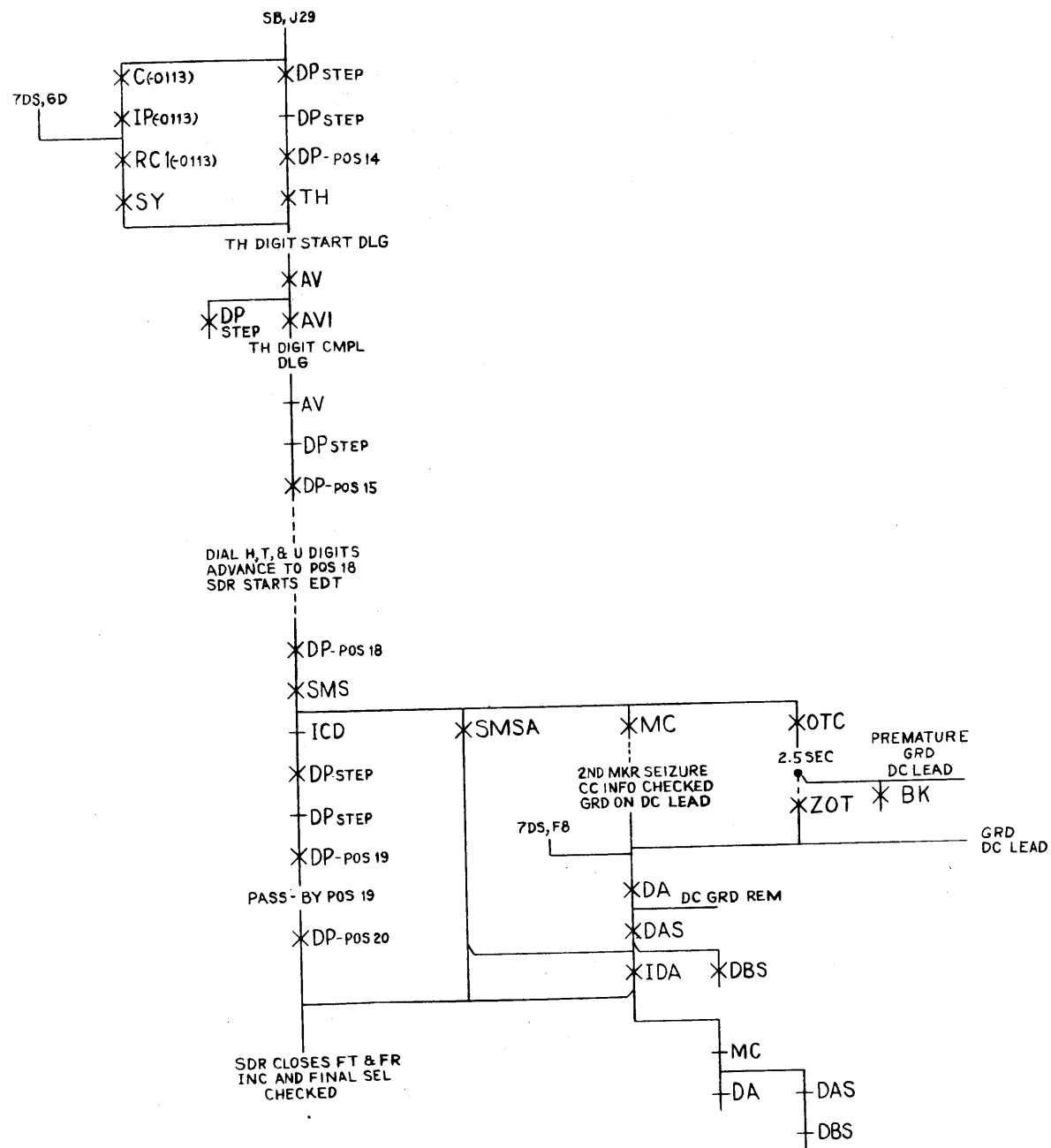
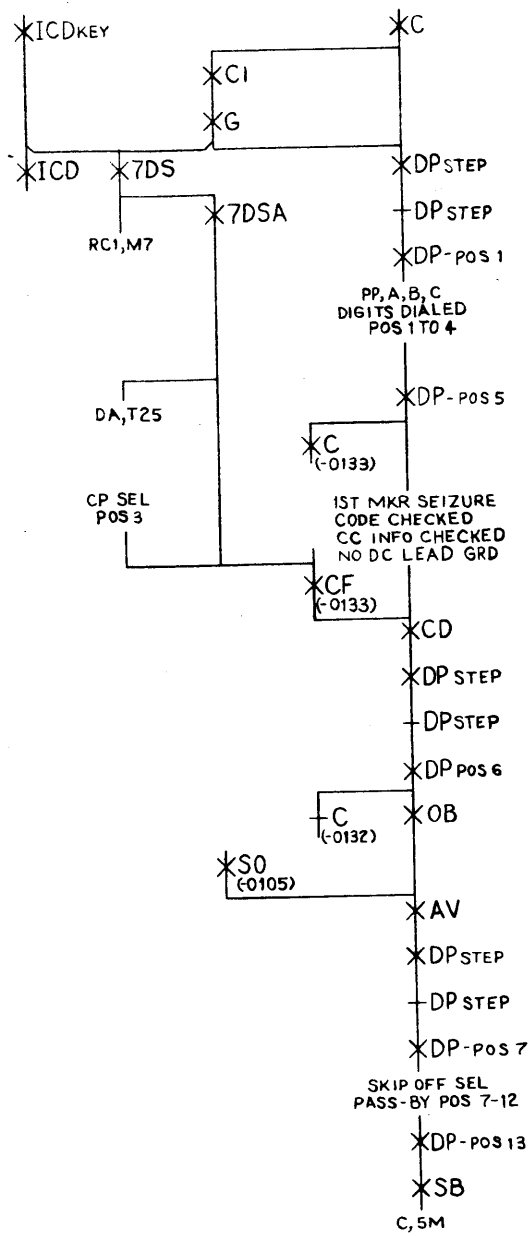
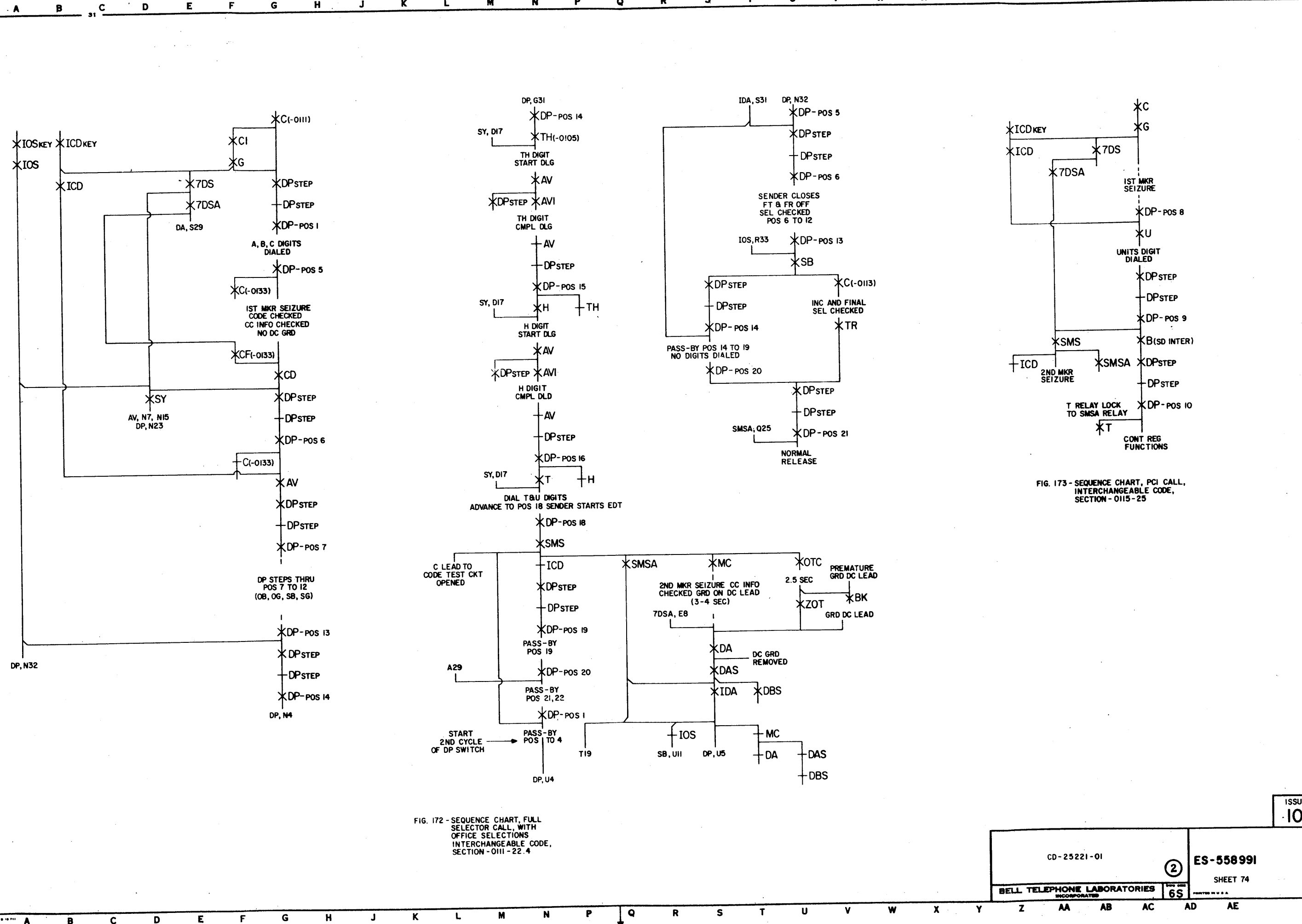


FIG. 171- SEQUENCE CHART, FULL SELECTOR CALL,
SKIP OFFICE, INTERCHANGEABLE CODE,
SECTION -011-22.3

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W 8 3/8 INCHES
OR BINDING
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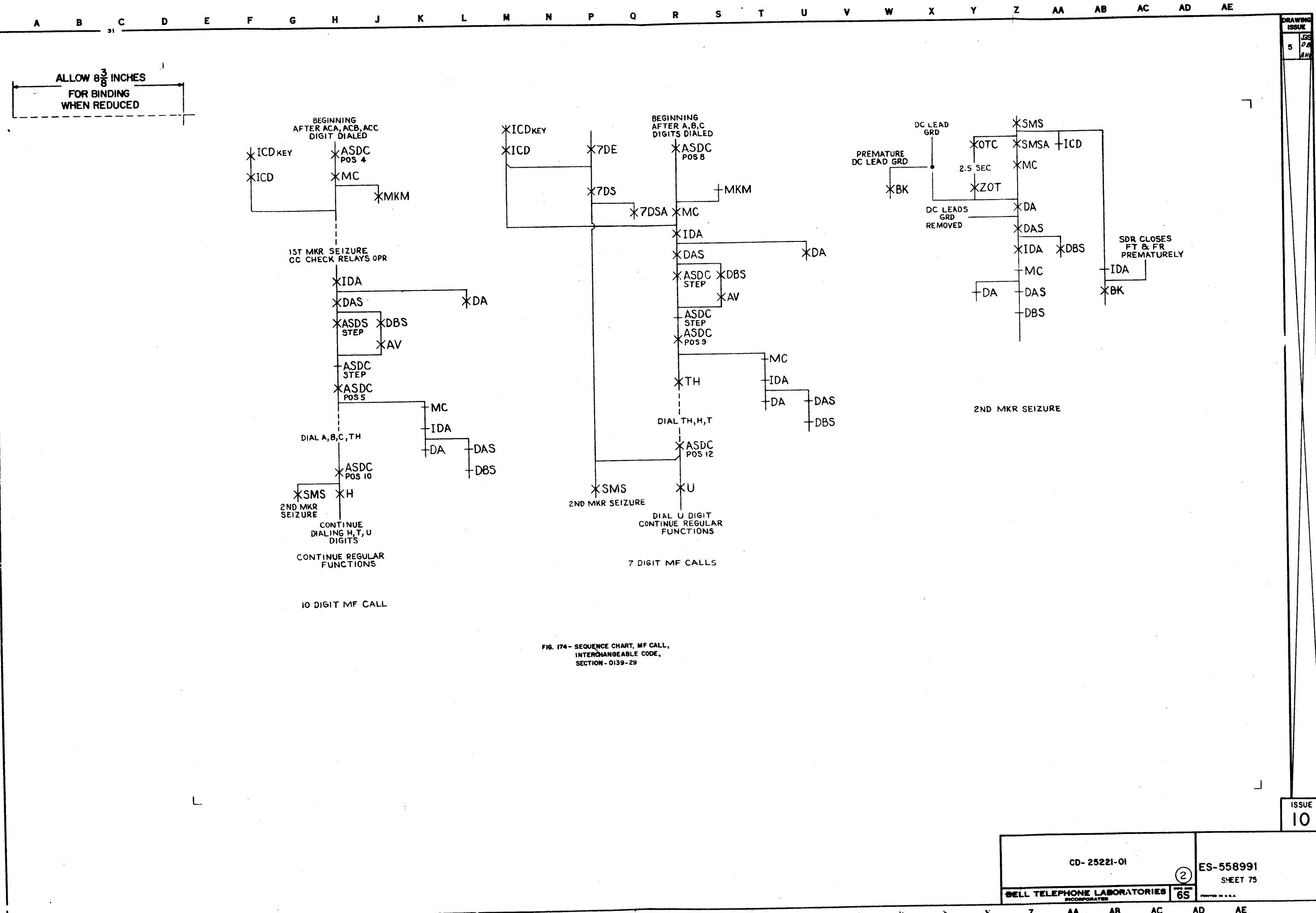


FIG. 174 - SEQUENCE CHART, MF CALL, INTERCHANGEABLE CODE, SECTION - 0139-29

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OW 8 1/2 INCHES
FOR BINDING
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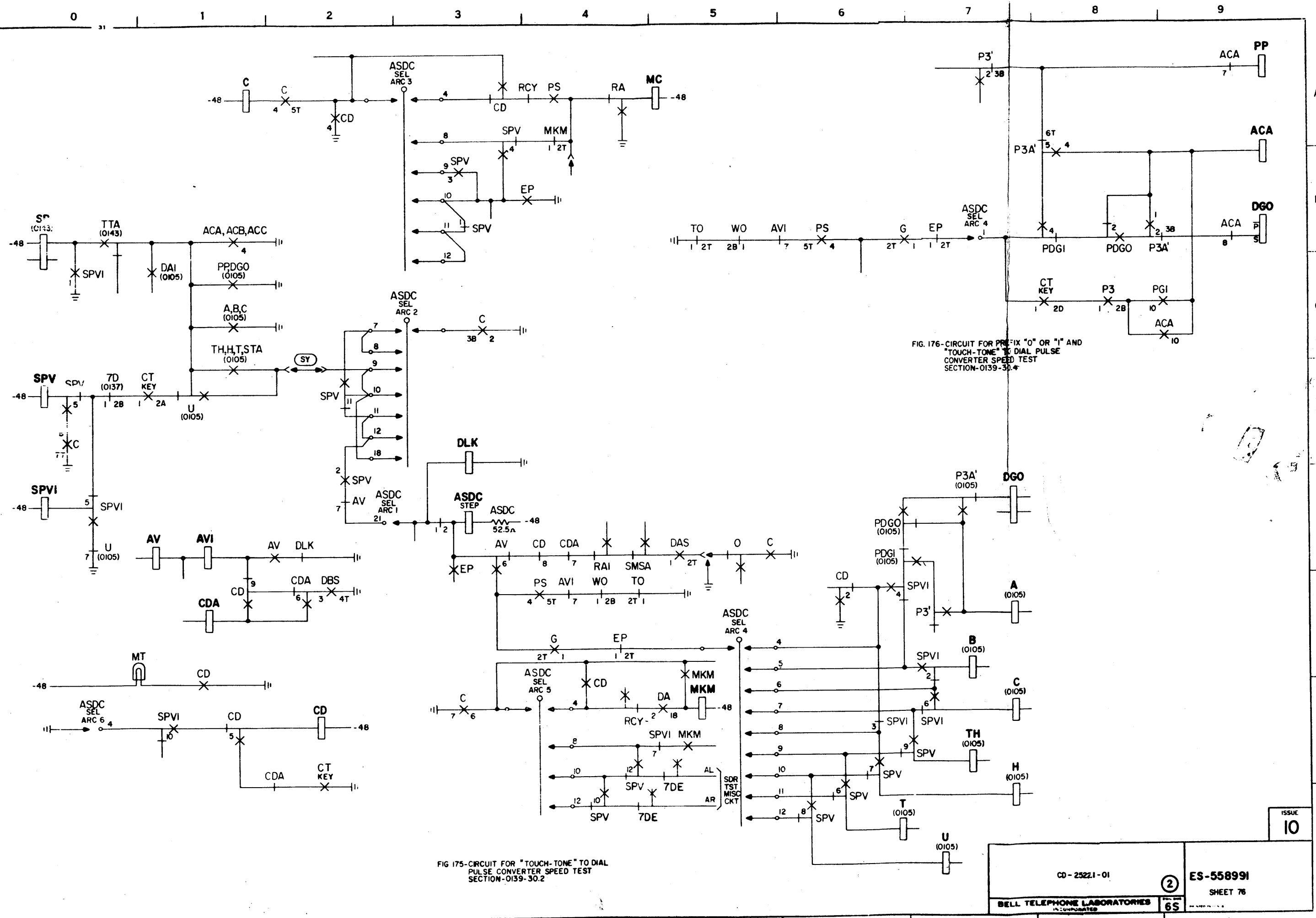


FIG. 176-CIRCUIT FOR PREFIX "0" OR "1" AND
"TOUCH-TONE" TO DIAL PULSE
CONVERTER SPEED TEST
SECTION-0139-30.4

FIG. 175-CIRCUIT FOR "TOUCH-TONE" TO DIAL
PULSE CONVERTER SPEED TEST
SECTION-0139-30.2

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LOW 8 1/2 INCHES
FOR BINDING
WHEN REDUCED

A

B

C

D

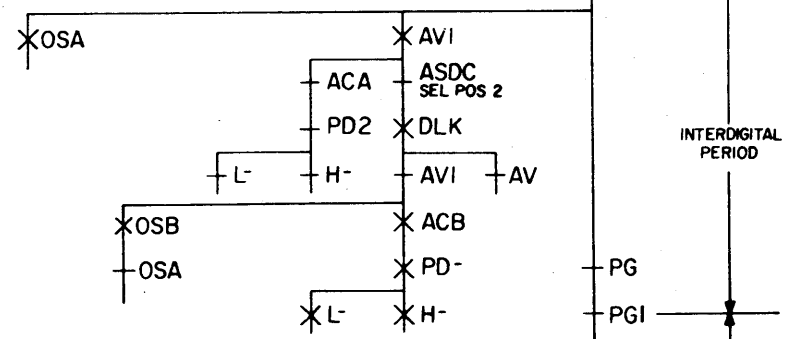
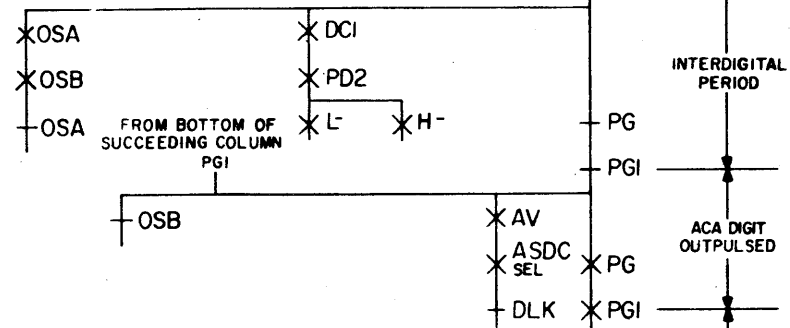
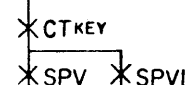
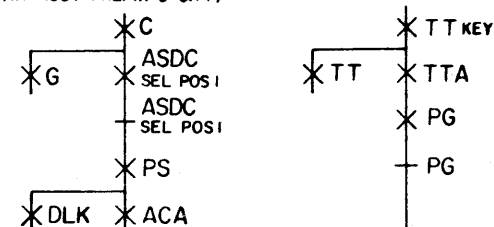
E

F

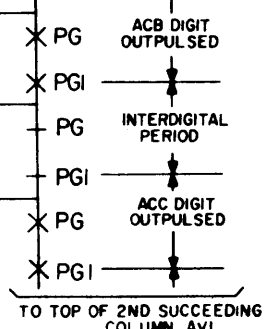
G

H

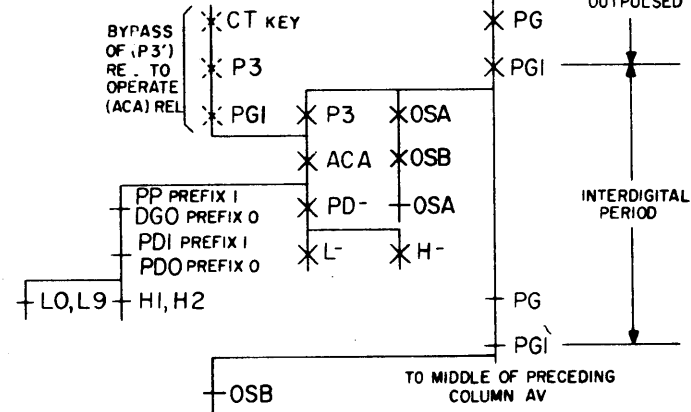
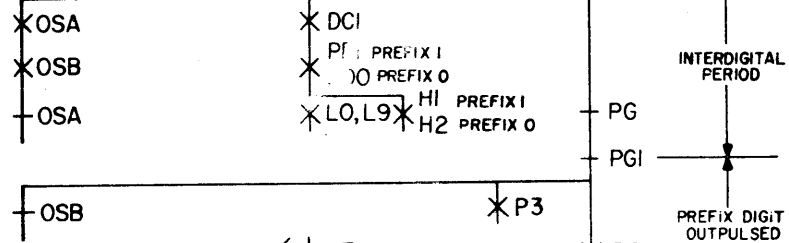
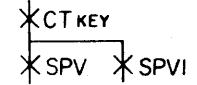
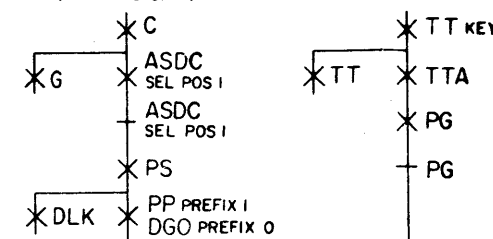
10 DIGIT "TOUCH-TONE" CALL
(WITHOUT PREFIX 0 OR 1)



SEQUENCE OF THESE PERIODS ARE IDENTICAL TO SIMILAR PERIODS SHOWN ABOVE



11 DIGIT "TOUCH-TONE" CALL
(PREFIX 0 OR 1)

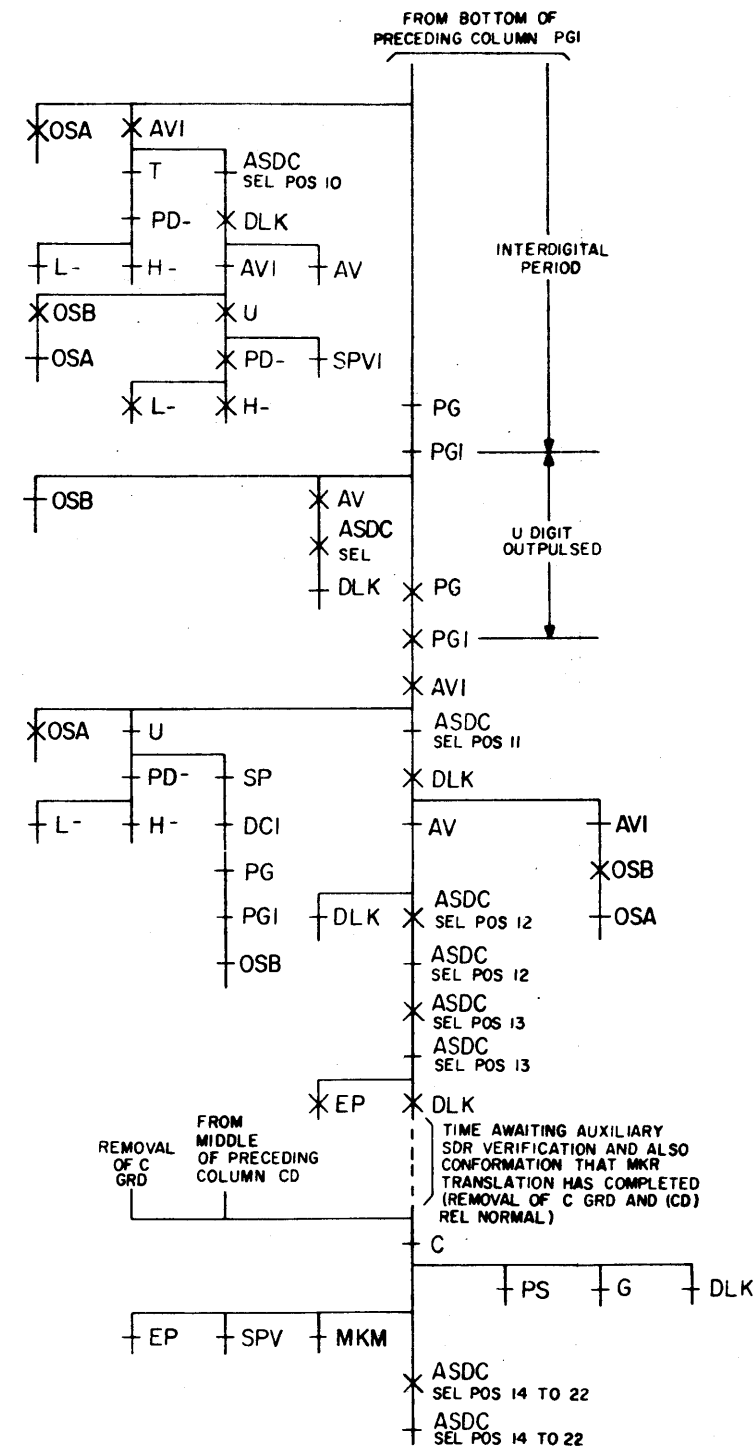
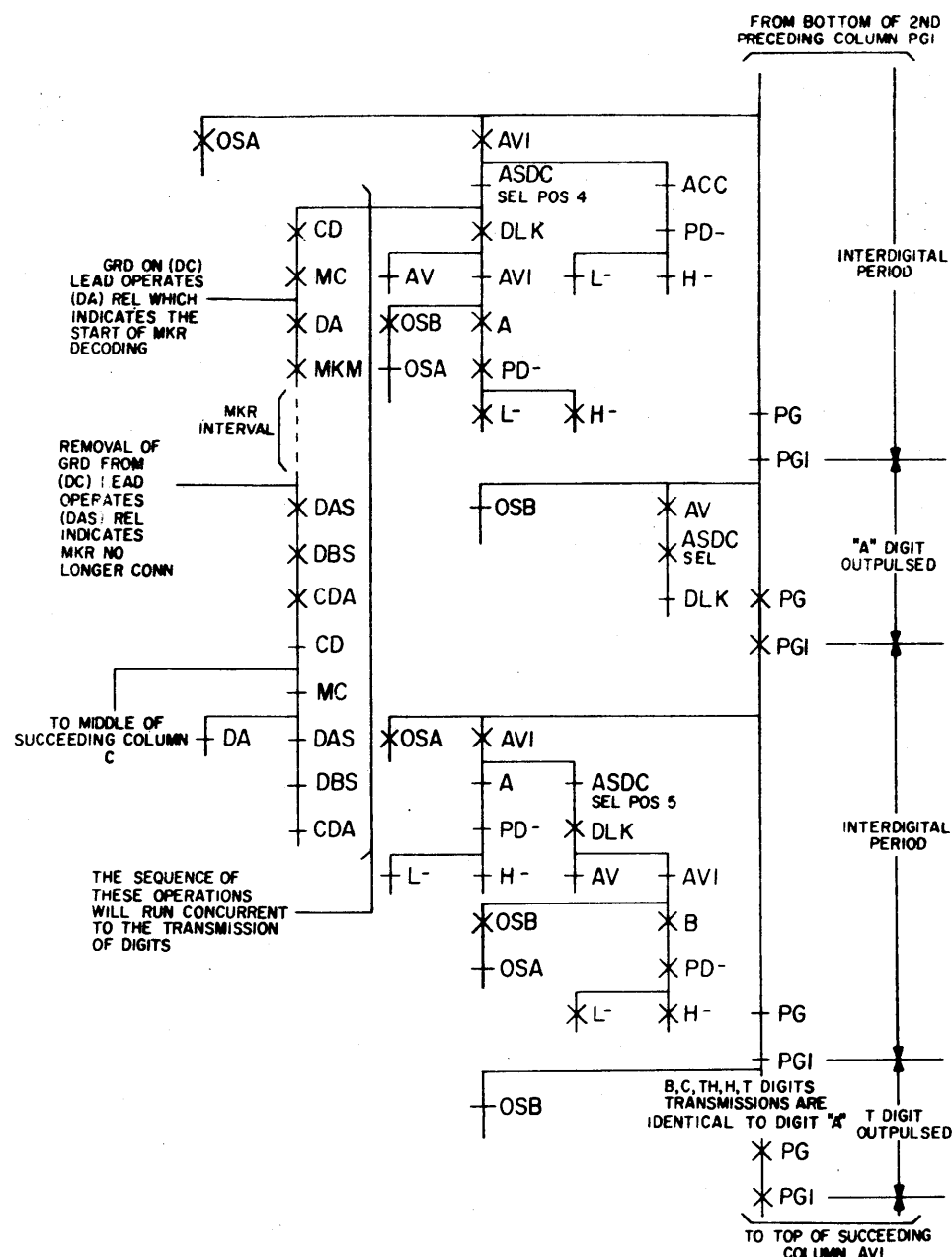


PART OF FIG. 177 - "TOUCH-TONE" TO DIAL PULSE
CONVERTER CIRCUIT SPEED TEST
SECTION - 0139-30

ES-558991

ISSUE
10

LOW 8 1/2 INCHES
FOR BINDING
WHEN REDUCED



PART OF FIG. 177 - "TOUCH-TONE" TO DIAL PULSE
CONVERTER CIRCUIT SPEED TEST
SECTION - 0139 - 30

ES-558991

ISSUE
10

1/8" INCHES
FOR
READING
REDUCED

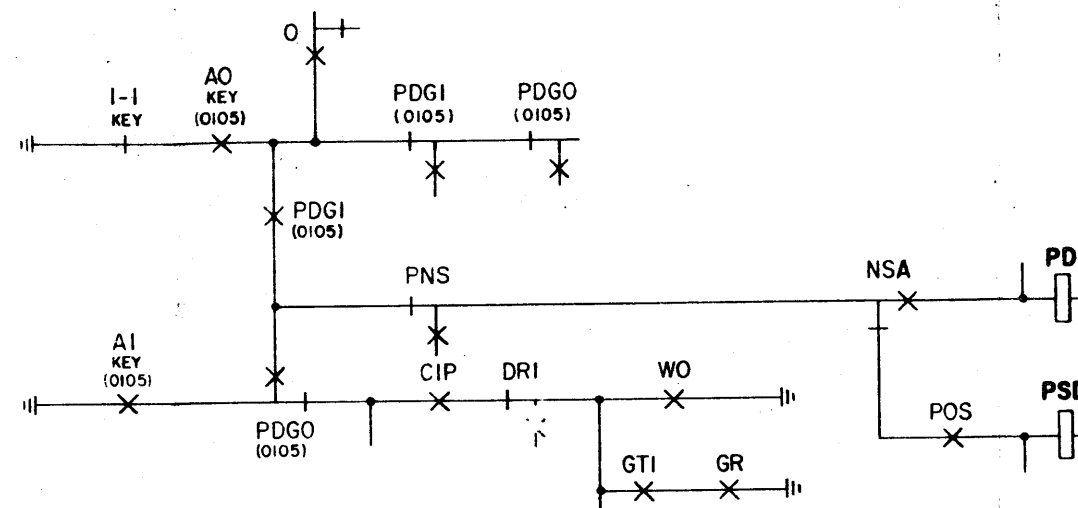
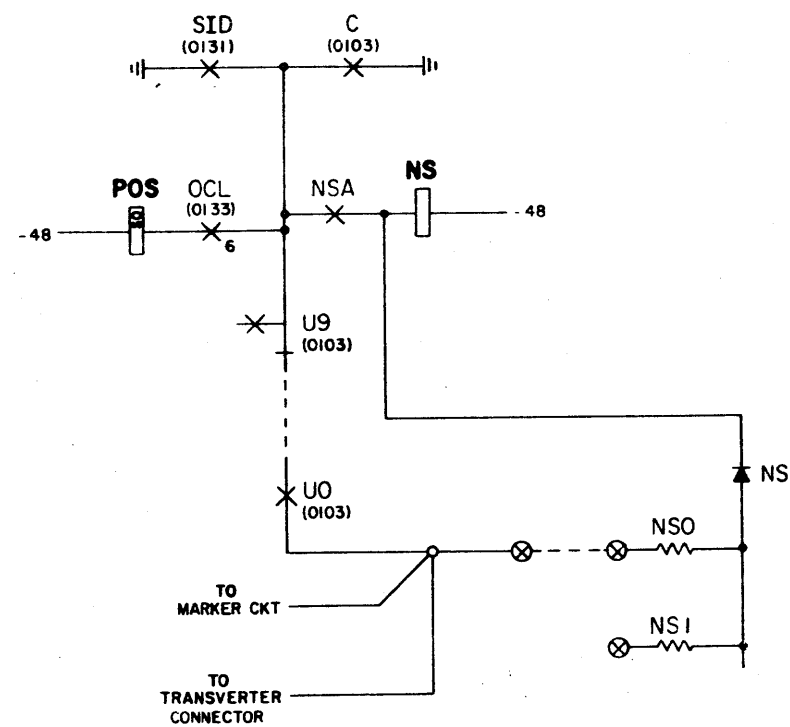


FIG. 178
BYPASSING THE SD-25012-01 SENDER
WHEN TESTING DOUBLE PREFIX "O-I, I-O"
FEATURE OF SENDER SD-27810-01
SECTION 0102, PAR. 33.1

ES-558991

ISSUE
10

BELL TELEPHONE LABORATORIES
INCORPORATED

2

6S

ES-558991
SHEET 79

ALLOW $6\frac{3}{8}$ INCHES
FOR BINDING
WHEN REDUCED

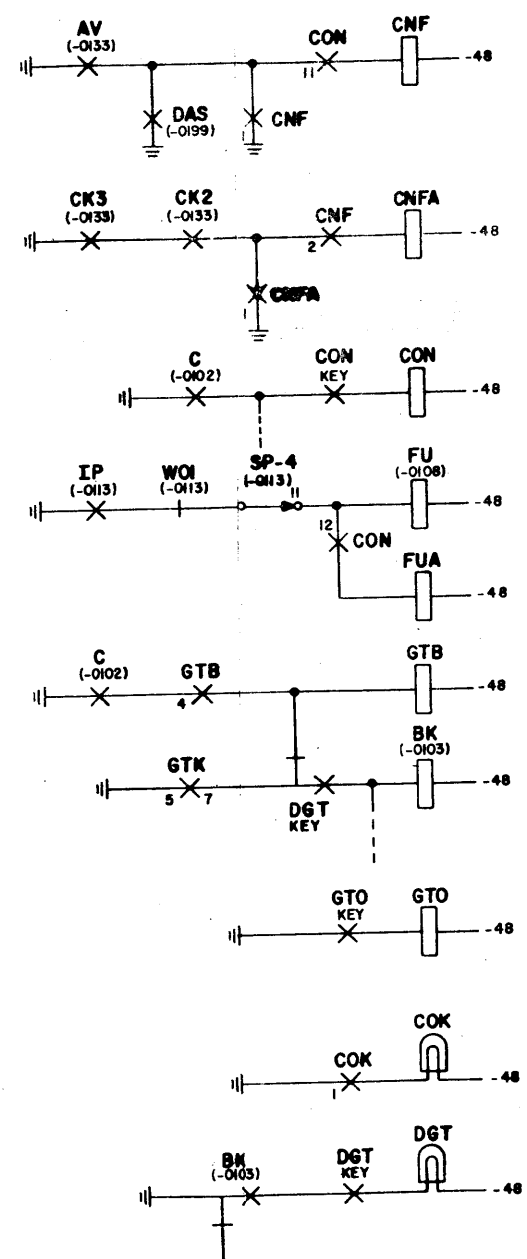
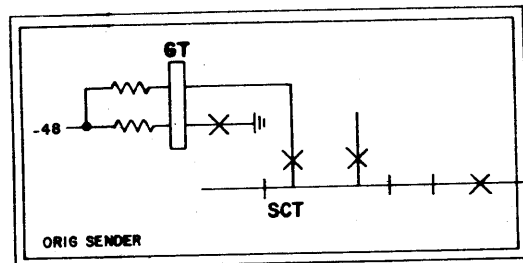
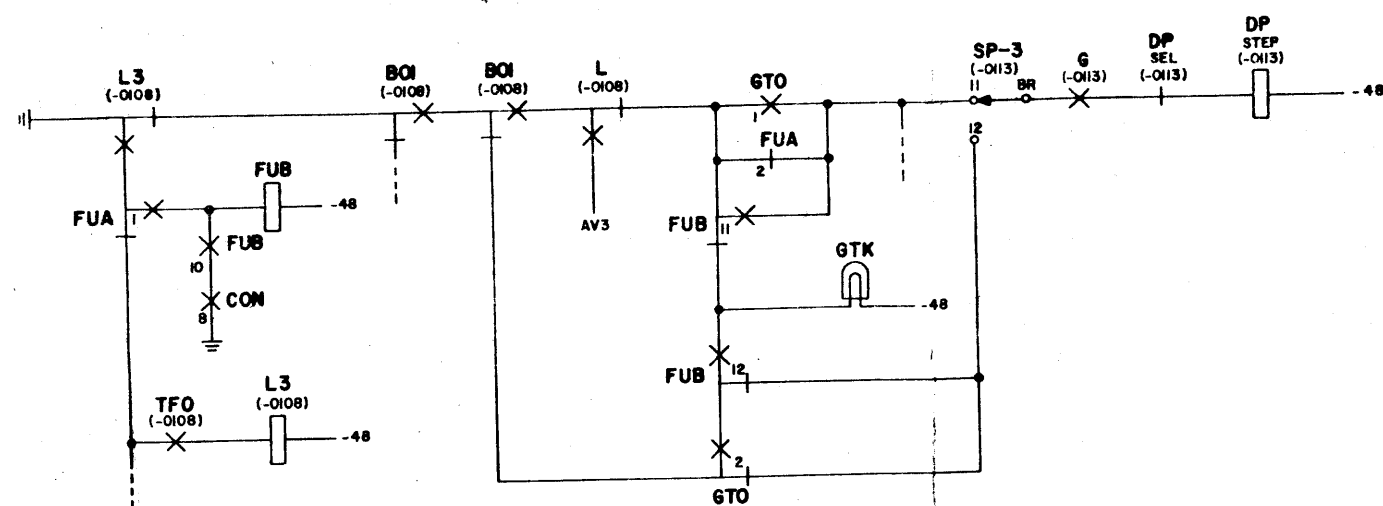


FIG. 179-COIN SERVICE IMPROVEMENT SENDER
"GT" RELAY TEST AND 2ND MARKER
TRANSLATION CHECK.

ES-558991

CD-25221-01

2

ES-558991
SHEET 80

BELL TELEPHONE LABORATORIES
INCORPORATED

6S

ISSUE
10